

# Reciprocating Piston Pumps: Oil

## Reciprocating Piston Pump Description

- 1.1. All reciprocating piston pumps will be designed to stand free of the bottom of the container to allow an unobstructed flow of product to the pumping tube.
- 1.2. All reciprocating piston pumps will be of self-priming design.
- 1.3. Pumps designated for use in bulk supply tanks will be equipped with a low fluid shut-off device to prevent free cycling of the pump in the event the fluid supply is exhausted.
- 1.4. All reciprocating piston pumps will have an air motor design with no metal-to-metal seals to prevent air leakage in the stalled condition.
- 1.5. The air motor cylinder will be of Aluminum construction to prevent corrosion in the presence of a contaminated air supply.
- 1.6. All reciprocating piston pumps will be of the T-slot design, for even wear distribution and minimal repair costs.
- 1.7. All reciprocating piston pumps will have mechanical style air motor valve design.
- 1.8. All reciprocating piston pumps will be equipped with mufflers to meet or exceed OSHA recommendations for noise generation.
- 1.9. All reciprocating piston pumps will be double acting to provide continuous even flow, pressure, and maximum utilization of the compressed air supply.
- 1.10. All reciprocating piston pumps will have self-lubricating fluid seals constructed of Ultrathane<sup>®</sup>.
- 1.11. All reciprocating piston pumps will have case hardened seats and ball checks for maximum service life and resistance to damage from contaminated product.
- 1.12. All reciprocating piston pumps will be individually factory tested and verified for proper function.
- 1.13. All reciprocating piston pumps will have a divorced design: allowing the air motor assembly to be field serviced independently from the fluid piston assembly.

Pumps  
Piston

# Reciprocating Piston Pumps: Oil Product Selection Matrix

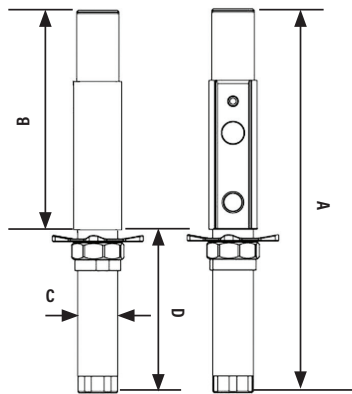
MAX. SIMUL. DISPENSE POINTS	MAX. LINE LENGTH	MAX. FREE FLOW	FLUID INLET	FLUID OUTLET	RECOMMENDED FLUID TYPES
<b>LYNX® 1:1</b>					
1	Up to 100' (30 m)*	10.6 gal/min (40 l/min)*	1" NPT(F)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils
<b>LYNX® 1:1 STAINLESS STEEL</b>					
1	Up to 100' (30 m)*	8.2 gal/min (31 l/min)*	1" NPT(F)	3/4" NPT(F)	Anti-freeze (Glycol), Windshield Wash Fluids
<b>LYNX® 3:1</b>					
1	Up to 125' (38 m)*	6.6 gal/min (25 l/min)*	3/4" NPT(F)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils, Gear and ATF
<b>PANTHER® 3:1</b>					
1-3*	250' (76 m)*	8 gal/min (30 l/min)*	1" NPT(F); 1 1/2" NPT(M)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils, Gear and ATF
<b>PANTHER® 5:1</b>					
1-3*	500' (152 m)*	6 gal/min (23 l/min)*	1" NPT(F); 1 1/2" NPT(M)	1/2" NPT(F)	Petroleum Based Oils, Synthetic Oils, Gear and ATF
<b>TIGER® 6:1</b>					
2-4*	500' (152 m)*	16 gal/min (61 l/min)*	1" NPT(F); 1 1/2" NPT(M)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils, and Anti-freeze (Glycol), Windshield Wash Fluids

\* Pump performance is predicated on fluid viscosity, pumping distance, pipe diameter, and dispense volume requirements. Contact Balcrank for system design assistance and technical data.

Pumps  
Piston

# LYNX 1:1 Piston Pump

Pumps  
Piston



DIMENSIONS INCHES (MM)			
<b>1110-010</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
19 9/16" (497 mm)	11 1/4" (286 mm)	2 3/64" (52 mm)	8 5/16" (211 mm)
<b>1110-009</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
46 1/2" (1181 mm)	11 1/4" (286 mm)	2 3/64" (52 mm)	35 1/4" (895 mm)
<b>1160-008</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
47 1/4" (1200 mm)	11 1/4" (286 mm)	2" (50 mm)	36" (914 mm)

## Overview

The LYNX® series pump is perfect for small volume users, for synthetics, gear oils, and standard mineral oils.

The 1:1 version is best for higher volume with short distance requirements such as oil bars, tapper pumps and medium to light viscosity oils pumping short distances.

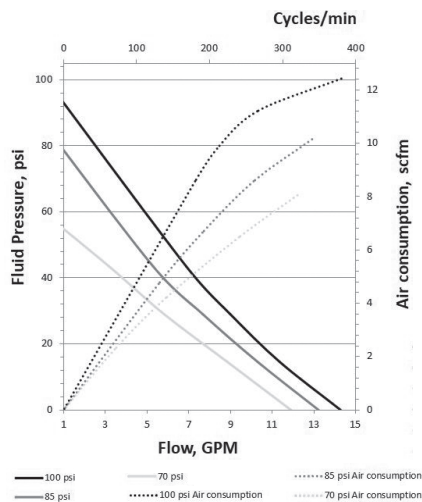
MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> <b>1110-010</b>	1:1 Bare carbon Steel stub pump with bung adapter
<input type="checkbox"/> <b>1110-009</b>	1:1 Bare carbon Steel drum pump with bung adapter
<input type="checkbox"/> <b>1160-008</b>	1:1 Bare stainless Steel drum pump with bung adapter

## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Transmission fluid
- Anti-freeze/windshield wash fluids (stainless version)

## Applications

- Tapper pumps
- Oil bar supply (pumping short distance)
- Roll-around synthetic or mineral oil packages
- Medium volume dispensing in agricultural, in-plant, and maintenance shop applications



TECHNICAL DATA	
Pump Ratio	1:1
Operating air pressure	45 -150 psi (3 -10 bar)
Cycles per gallon	31 cyc/gal (8.2 cyc/liter)
Air consumption 100 psi (7 bar) & 3 gal/min (11 l/min)	3.50 scfm
Max Fluid stall pressure @ 150 psi (10 bar) <sup>(1)</sup>	145 psi (10 bar)
Effective Air Piston Diameter	1.375" (35 mm)
1110-010, 1110-009 Free flow pump delivery with SAE 10W30 oil, 68 °F (20 °C), 150 psi (10 bar) air pressure	10.6 gal/min (40 l/min)
1160-008 Free flow pump delivery with SAE 10W30 oil, 68 °F (20 °C), 150 psi (10 bar) air pressure	8.2 gal/min (30 l/min)
Air inlet	1/4" NPT(F)
Fluid inlet (stub only)	1" NPT(F)
Fluid outlet 1110-010, 1110-009	3/4" NPT(F)
Fluid outlet 1160-008	3/4" NPT(M)
Wetted materials 1110-010 & 1110-009	Steel, Brass, Aluminum, Buna-N™, and Polyurethane
1160-008	Stainless Steel, Viton, and PTFE
Service Bulletin 1110-010, 1110-009	SB 1102
Service Bulletin 1160-008	SB 1143

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit 3120-086 for this pump.

(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

**Warning!** Do not use any LYNX® series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## LYNX 1:1 Pump Description

The LYNX® 1:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products up to SAE 90. The LYNX® series pump is perfect for small volume users, for synthetics, gear oils, and standard mineral oils.

The 1:1 version is best for higher volume with short distance requirements such as oil bars, taper pumps and medium to light viscosity oils pumping short distances.

## LYNX 1:1 Models Available

- 1110-010** 1:1 Bare carbon Steel stub pump with bung adapter
- 1110-009** 1:1 Bare carbon Steel drum pump with bung adapter
- 1160-008** 1:1 Bare stainless Steel drum pump with bung adapter

## LYNX 1:1 Pump Specifications

- 3.1. Pump will have a 1:1 ratio
- 3.2. Pump will have an air inlet port of 1/4" NPT (F)
- 3.3. Pump will have a fluid inlet (stub only) port of 1" NPT (F)
- 3.4. Pump will have a fluid outlet port of 3/4" NPT (F) for 1110-010, 1110-009 & 3/4" NPT (M) for 1160-008
- 3.5. Pump will have a free flow of 10.6 gal/min (40 l/min) based on 150 psi (10 bar) air pressure for 1110-010 & 1100-009
- 3.6. Pump will have a free flow of 8.2 gal/min (30 l/min) based on 150 psi (10 bar) air pressure for 1160-008
- 3.7. Pump will have an operating air pressure of 45 -150 psi (3 -10 bar)
- 3.8. Pump will have a maximum fluid stall pressure of 145 psi (10 bar)
- 3.9. Pump will have a 1.375" (35 mm) effective diameter displacement air motor valve-in-piston design
- 3.10. Pump will have an air consumption of 3.50 scfm based on 100 psi (7 bar) & 3 gal/min (11 l/min)

## Materials

The wetted materials will consist of:

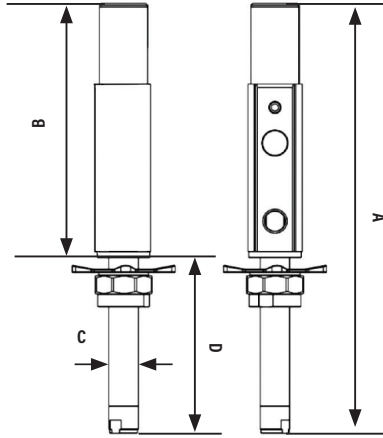
- 4.1. 1110-010 & 1110-009 Steel, Brass, Aluminum, Buna-N™, and Polyurethane
- 4.2. 1160-008 Stainless Steel, Viton, and PTFE

## Warranty

- 5.1. The LYNX 1:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# LYNX 3:1 Piston Pump

Pumps  
Piston



DIMENSIONS INCHES (MM)			
1110-007			
A	B	C	D
19 9/16" (497 mm)	11 1/4" (286 mm)	1 11/32" (34 mm)	8 5/16" (211 mm)

## Overview

The LYNX® series pump is perfect for small volume users, for synthetics, and standard mineral oils.

The 3:1 version is best for small tank packages, roll-around units for synthetic and mineral base drum applications.

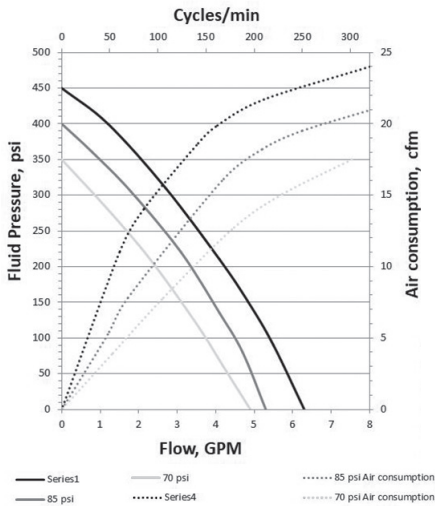
MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1110-007	3:1 Bare carbon Steel stub pump with bung adapter

## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Transmission fluid

## Applications

- Oil bar supply (pumping short distance)
- Roll-around synthetic or mineral oil packages
- Low volume dispensing in agricultural, in-plant, and maintenance shop applications



TECHNICAL DATA	
Pump Ratio	3:1
Operating air pressure	45 -150 psi (3 -10 bar)
Cycles per gallon	98 cyc/gal (26.5 cyc/liter)
Air consumption 100 psi (7 bar) & 3 gal/min (11 l/min)	18.80 scfm
Max Fluid stall pressure @ 150 psi (10 bar) <sup>(1)</sup>	725 psi (50 bar)
Effective Air Piston Diameter	1.375" (35 mm)
Free flow pump delivery with SAE 10W30 oil, 68 °F (20 °C), 150 psi (10 bar) air pressure	6.6 gal/min (25 l/min)
Air inlet	1/4" NPT(F)
Fluid inlet	3/4" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Buna-N™, Steel, Brass, Aluminum, and Polyurethane
Service Bulletin	SB 1101

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit 3120-086 for this pump.

(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

**Warning!** Do not use any LYNX® series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## LYNX 3:1 Pump Description

The LYNX® 3:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products. The LYNX® series pump is perfect for small volume users, for synthetics, and standard mineral oils.

The 3:1 version is best for small tank packages, roll-around units for synthetic and mineral base drum applications.

## LYNX 3:1 Models Available

- ❑ **1110-007** 3:1 Bare carbon Steel stub pump with bung adapter

## LYNX 3:1 Pump Specifications

- 3.1. Pump will have a 3:1 ratio
- 3.2. Pump will have an air inlet port of 1/4" NPT (F)
- 3.3. Pump will have a fluid inlet port of 3/4" NPT(F)
- 3.4. Pump will have a fluid outlet port of 3/4" NPT(F)
- 3.5. Pump will have a free flow of 6.6 gal/min (25 l/min) based on 150 psi (10 bar) air pressure
- 3.6. Pump will have an operating air pressure of 45 -150 psi (3 -10 bar)
- 3.7. Pump will have a maximum fluid stall pressure of 725 psi (50 bar)
- 3.8. Pump will have a 1.375" (35 mm) effective diameter displacement air motor valve-in-piston design
- 3.9. Pump will not exceed 98 cycles per gallon
- 3.10. Pump will have an air consumption of 18.80 scfm based on 100 psi (7 bar) & 3 gal/min (11 l/min)

## Materials

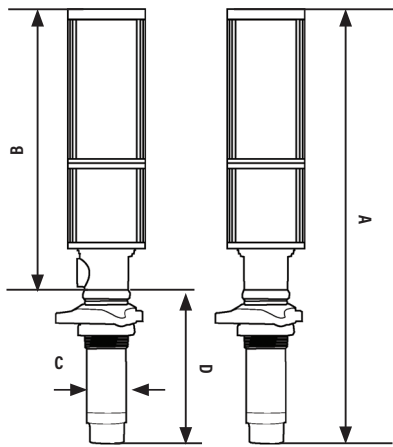
- 4.0. The wetted materials will consist of Buna-N™, Steel, Brass, Aluminum, and Polyurethane

## Warranty

- 5.1. The LYNX 3:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Panther HP 3:1

Pumps  
Piston



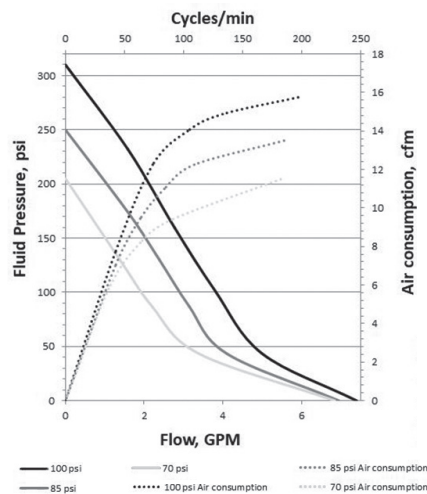
DIMENSIONS INCHES (MM)			
1130-015 & 1130-020			
A	B	C	D
23.5" (523.9 mm)	14 3/8" (285 mm)	2 4/5" (71 mm)	6 1/2" (158.7 mm)
1130-017			
21 8/9" (555.6 mm)	14 3/8" (285 mm)	2 1/8" (54 mm)	7 1/2" (190.5 mm)

## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Transmission fluid

## Applications

- Medium sized tank packages
- Medium volume maintenance shops
- Small car dealerships
- Quick lubes



## Overview

Pride Series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 3:1 version is a medium pressure pump for supplying higher volume than the 5:1 version but at lower operating pressures ideal for medium pumping distances and overall flow rates of 4-5 gpm.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1130-015	3:1 Bare carbon Steel stub pump
<input type="checkbox"/> 1130-017	3:1 Bare carbon Steel stub pump, flange mount
<input type="checkbox"/> 1130-020	3:1 Bare carbon Steel pump with bung adapter

TECHNICAL DATA	
Pump Ratio	3:1
Operating air pressure	10-150 psi (.7-10 bar)
Cycles per gallon	34 cyc/gal (8.98 cyc/liter)
Air consumption 100 psi (7 bar) & 4 gal/min (15 l/min)	19.70 SCFM
Max. fluid stall pressure @150 psi (10 bar) <sup>(1)</sup>	490 psi (33.7 bar)
Effective air piston diameter	2.5" (63.5 mm)
Free Flow pump delivery with SAE 10W30 oil, 68° F (20° C), 100 psi (7 bar) air pressure	8 gal/min (30 l/min)
Air inlet	1/4" NPT(F)
Fluid inlet	1" NPT(F); 1 1/2" NPT(M)
Fluid outlet	3/4" NPT(F)
Wetted materials	Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon
Service Bulletin	SB 1064

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.  
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

**Warning!** Do not use any Pride series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Panther® HP 3:1 Pump Description

The Panther® HP 3:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products up to SAE 90. Pride Series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 3:1 version is a medium pressure pump for supplying higher volume than the 5:1 version but at lower operating pressures ideal for medium pumping distances and overall flow rates of 4-5 gpm.

## Panther® HP 3:1 Models Available

- 1130-015**      3:1 Bare carbon Steel stub pump
- 1130-017**      3:1 Bare carbon Steel stub pump, flange mount
- 1130-020**      3:1 Bare carbon Steel pump with bung adapter

## Panther® HP 3:1 Pump Specifications

- 3.1. Pump will have a 3:1 ratio
- 3.2. Pump will have a 2.5" (63.5 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/4" NPT (F)
- 3.4. Pump will have a fluid inlet port of 1" NPT (F) and 1 1/2" NPT (M)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT (F)
- 3.6. Pump will have a free flow of 8 gal/m (30 l/m) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 10-150 psi (.7-10 bar)
- 3.8. Pump will have an air consumption pressure at 100 psi (7 bar) & 4 gal/m (15 l/m) of 19.70 SCFM
- 3.9. Pump will have a maximum fluid stall pressure of 490 psi (33.7 bar)
- 3.10. Pump will not exceed 34 cycles per gallon

## Materials

- 4.1. Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon.

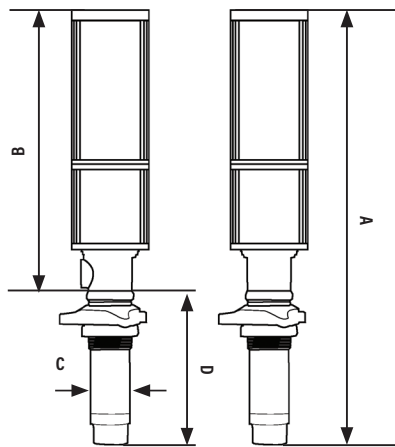
## Warranty

- 5.1. The Panther® HP 3:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.



# Panther HP 5:1

Pumps  
Piston



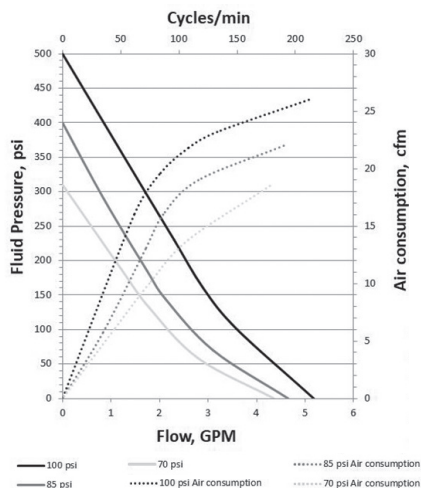
DIMENSIONS INCHES (MM)			
<b>1130-016 &amp; 1130-021</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
23.5" (523.9 mm)	14 3/8" (285 mm)	2 4/5" (71 mm)	6 1/2" (158.7 mm)
<b>1130-018</b>			
21 8/9" (555.6 mm)	14 3/8" (285 mm)	1 7/8" (47.6 mm)	7 1/2" (190.5 mm)

## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Transmission fluid
- Gear oil

## Applications

- Medium sized tank packages
- Medium volume maintenance shops
- Small car dealerships
- Quick lubes



## Overview

Pride Series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 5:1 version is a medium pressure pump for supplying higher pressures and for longer pumping distances than the 3:1 version but at lower volume ideal for longer pumping distances and overall flow rates of 4 gpm.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> <b>1130-016</b>	5:1 Bare carbon Steel stub pump
<input type="checkbox"/> <b>1130-018</b>	5:1 Bare carbon Steel stub pump, flange mount
<input type="checkbox"/> <b>1130-021</b>	5:1 Bare carbon Steel pump with bung adapter

TECHNICAL DATA	
Pump Ratio	5:1
Operating air pressure	10-150 psi (.7-10 bar)
Cycles per gallon	57 cyc/gal (15.06 cyc/liter)
Air consumption 100 psi (7 bar) & 4 gal/min (15 l/min)	24.80 SCFM
Max fluid stall pressure @150 psi (10 bar) <small>(1)</small>	760 psi (52 bar)
Effective air piston diameter	2.5" (63.5 mm)
Free Flow pump delivery with SAE 10W30 oil, 68° F (20° C), 100 psi (7 bar) air pressure	6 gal/min (30 l/min)
Air inlet	1/4" NPT(F)
Fluid inlet	1" NPT(F); 1 1/2" NPT(M)
Fluid outlet	1/2" NPT(F)
Wetted materials	Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon
Service Bulletin	SB 1064

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

**Warning!** Do not use any Pride series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Panther® HP 5:1 Pump Description

The Panther® HP 5:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products up to SAE 90. Pride Series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 5:1 version is a medium pressure pump for supplying higher pressures and for longer pumping distances than the 3:1 version but at lower volume ideal for longer pumping distances and overall flow rates of 4 gpm.

## Panther® HP 5:1 Models Available

- 1130-016** 5:1 Bare carbon Steel stub pump
- 1130-018** 5:1 Bare carbon Steel stub pump, flange mount
- 1130-021** 5:1 Bare carbon Steel pump with bung adapter

## Panther® HP 5:1 Pump Specifications

- 3.1. Pump will have a 5:1 ratio
- 3.2. Pump will have a 2.5" (63.5 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/4" NPT (F)
- 3.4. Pump will have a fluid inlet port will of 1" NPT (F) and 1 1/2" NPT (M)
- 3.5. Pump will have a fluid outlet port of 1/2" NPT (F)
- 3.6. Pump will have a free flow of 6 gal/m (30 l/m) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 10-150 psi (.7-10 bar)
- 3.8. Pump will have an air consumption pressure at 100 psi (7 bar) & 3 gal/m (11 l/m) of 24.8 SCFM
- 3.9. Pump will have a maximum fluid stall pressure of 760 psi (52 bar)
- 3.10. Pump will not exceed 57 cycles per gallon

## Materials

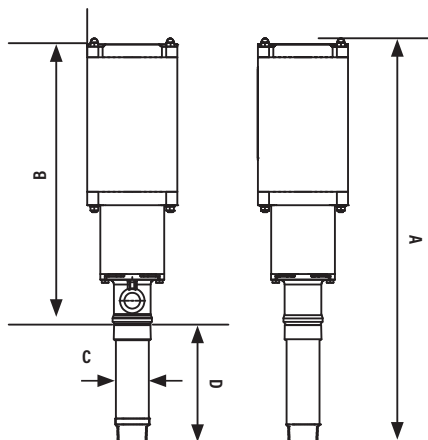
- 4.1. The wetted materials will consist of Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon

## Warranty

- 5.1. The Panther® HP 5:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Tiger HP 6:1

Pumps  
Piston



DIMENSIONS INCHES (MM)			
A	B	C	D
21 5/7" (514.5 mm)	16 1/4" (412.9 mm)	2 4/5" (71 mm)	4" (101.6 mm)

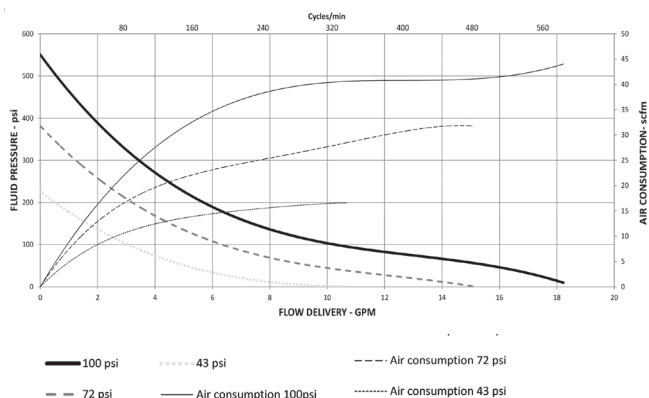
## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Transmission fluid
- Gear oil

## Applications

- Large sized tank packages
- Medium-large volume maintenance shops
- Medium to large volume car dealerships
- HD truck/fleet shops
- Off-road construction maintenance shops
- Mass-transit maintenance shops

Windshield wash fluid & water based fluids for use with 1160-007 stainless steel model only.



## Overview

Tiger® is the largest of the Pride series pumps. Pride series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 6:1 version is a medium pressure pump for supplying higher pressures and longer pumping distances.

The larger 3.2" air motor makes this pump ideal for larger users who need higher flow rates and slower pump cycle rates.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1130-019	6:1 Bare carbon Steel stub pump
<input type="checkbox"/> 1130-025	6:1 Bare carbon Steel stub pump, flange mount
<input type="checkbox"/> 1130-026	6:1 Bare carbon Steel stub pump with bung adapter
<input type="checkbox"/> 1160-007	6:1 Bare stainless Steel stub pump

TECHNICAL DATA	
Pump Ratio	6:1
Operating air pressure	40-150 psi (3-10 bar)
Cycles per gallon	31 cyc/gal (8.2 cyc/liter)
Air consumption 100 psi (7 bar) & 8 gal/min (30 l/min)	59 SCFM
Max fluid stall pressure @150 psi (10 bar) <sup>(1)</sup>	870 psi (60 bar)
Effective Air Piston Diameter	3.2" (81 mm)
Free flow pump delivery with SAE 10W30 oil, 68° F (20° C), 100 psi (7 bar) air pressure	16 gal/min (61 l/min)
Air inlet	3/8" NPT(F)
Fluid inlet	1" NPT(F); 1 1/2" NPT(M)
Fluid outlet	3/4" NPT(F)
Wetted materials 1130-019 - 1130-025 - 1130-026	Carbon steel, Buna-N™, Stainless steel, Ultrathane® and Aluminum.
1160-007	Stainless Steel and Viton®
Service Bulletin	SB 1065

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

**Warning!** Do not use any Pride series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Tiger HP 6:1 Pump Description

The Tiger HP 6:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products up to SAE 90. Tiger is the largest of the Pride series pumps. Pride series pumps are manufactured with a mechanical air valve and piston design which is more forgiving to environments with contaminated air.

The 6:1 version is a medium pressure pump for supplying higher pressures and longer pumping distances.

The larger 3.2" air motor makes this pump ideal for larger users who need higher flow rates and slower pump cycle rates.

## Tiger HP 6:1 Models Available

- 1130-019** 6:1 Bare carbon Steel stub pump
- 1130-025** 6:1 Bare carbon Steel stub pump, flange mount
- 1130-026** 6:1 Bare carbon Steel stub pump with bung adapter
- 1160-007** 6:1 Bare stainless Steel stub pump

## Tiger HP 6:1 Pump Specifications

- 3.1. Pump will have a 6:1 ratio
- 3.2. Pump will have a 3.2" (81 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port will of 3/8" NPT (F)
- 3.4. Pump will have a fluid inlet port of 1" NPT (F) and 1 1/2" NPT (M)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT (F)
- 3.6. Pump will have a free flow of 16 gal/m (61 l/m) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 40-150 psi (3-10 bar)
- 3.8. Pump will have an air consumption pressure at 100 psi (7 bar) & 8 gal/m (30 l/m) of 59 SCFM
- 3.9. Pump will have a maximum fluid stall pressure of 870 psi (60 bar)
- 3.10. Pump will not exceed 31 cycles per gallon

## Materials

The wetted materials will consist of:

- 4.1. 1130-019, 1130-025 & 1130-026 Carbon Steel, Buna-N™, Stainless Steel, Aluminum, and Ultrathane®.
- 4.2. 1160-007 Stainless Steel and Viton®

## Warranty

- 5.1. The Tiger HP 6:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Reciprocating Piston Pumps: High Flow Oil

## Reciprocating Piston Pump LION 450/600 Oil Description

- 1.1. All reciprocating piston pumps will have anti-corrosive, hardened pump rod and in-line configuration that aligns the axis of the air motor with the pump rod and piston assembly
- 1.2. All reciprocating piston pumps are designed for low-friction, to minimize wear, and maximize life
- 1.3. All reciprocating piston pumps will have a double-valve, stub pump tube used for positive priming and pumping of all grades of oil.
- 1.4. All reciprocating piston pumps will have an aluminum die-cast air motor with hard anodized aluminum cylinder
- 1.5. All reciprocating piston pumps will have a lightweight aluminum drive piston
- 1.6. All reciprocating piston pumps will have a high tensile hard-chrome plated steel on the fluid piston rod
- 1.7. All reciprocating piston pumps will have cast iron outlet body and thick-wall polished steel tube
- 1.8. All reciprocating piston pumps will have a fluid piston and inlet valves made of hardened steel with polyurethane piston packings on all oil pumps

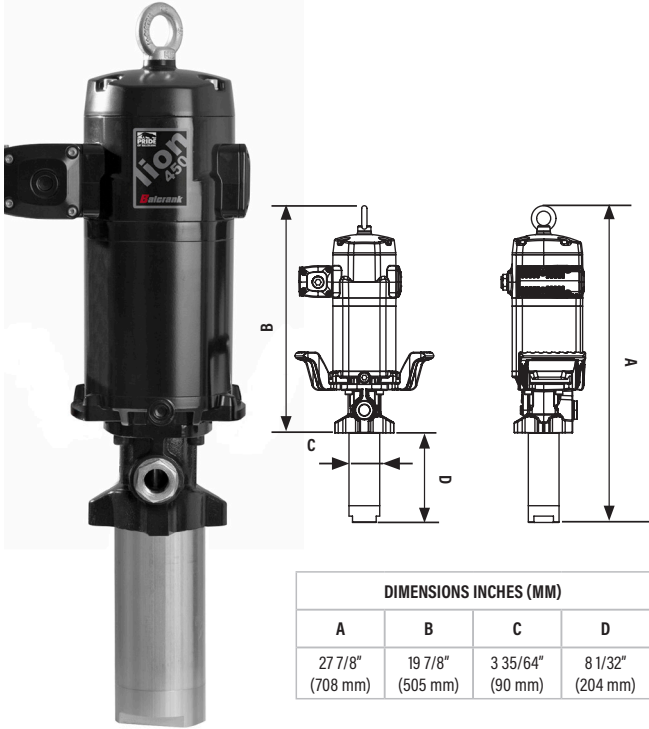
# Reciprocating Piston Pumps: High Flow Oil Product Selection Matrix

MAX. SIMUL. DISPENSE POINTS	MAX. LINE LENGTH	MAX. FREE FLOW	FLUID INLET	FLUID OUTLET	RECOMMENDED FLUID TYPES
<b>LION™ 450 3:1</b>					
3-4*	Up to 250' (76 m)*	12 gal/min (45 l/min)	1 1/2" NPT(F)	3/4" NPT(F)	Petroleum Based Oils Synthetic Oils Gear and ATF
<b>LION™ 450 6:1</b>					
3-4*	Up to 500' (152 m)*	25 gal/min (95 l/min)	1 1/2" NPT(F)	3/4" NPT(F)	Petroleum Based Oils Synthetic Oils Gear and ATF
<b>LION™ 450 10:1</b>					
3-4*	Up to 750' (230 m)*	17 gal/min (65 l/min)	1 1/2" NPT(F)	3/4" NPT(F)	Petroleum Based Oils Synthetic Oils Gear and ATF
<b>LION™ 600 6:1</b>					
3-4*	Up to 500' (152 m)*	26 gal/min (100 l/min)	1 1/2" NPT(F)	3/4" NPT(F)	Petroleum Based Oils Synthetic Oils Gear and ATF
<b>LION™ 600 12:1</b>					
3-4*	Up to 750' (230 m)*	17 gal/min (65 l/min)	1 1/2" NPT(F)	3/4" NPT(F)	Petroleum Based Oils Synthetic Oils Gear and ATF

\* Pump performance is predicated on fluid viscosity, pumping distance, pipe diameter, and dispense volume requirements. Contact Balcrank for system design assistance and technical data.

# Lion™ 450 - 3:1

Pumps  
Piston



## Overview

Medium pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required. Medium pressure pump is recommended for medium pumping distances.

Wall or floor mount only. Pump OD does not fit 2" bung adapter.

MODELS AVAILABLE	DESCRIPTION
1430-001	Lion™ 450 3:1 stub pump

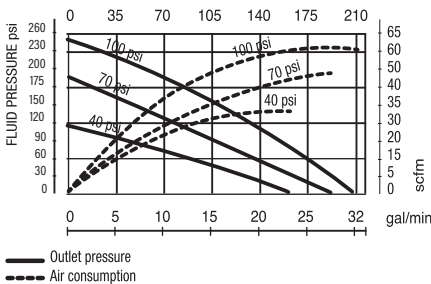
## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

## Applications

- Heavy duty truck/fleet
- Railroad/mass transit vehicle maintenance
- In-plant high volume transfer
- Marine
- Mining vehicle maintenance
- Large automotive dealerships

TEST FLUID: SAE 10  
Cycles/min.



## TECHNICAL DATA

Pump Ratio	3:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	6
Air Consumption <sup>(1)</sup>	28 cfm (800 NI/min)
Max fluid outlet pressure <sup>(3)</sup>	510 psi (36 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Delivery at 80 cpm	12 gal/min (45 l/min)
Max free flow delivery	32 gal/min (120 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Steel, Hard Chromed Steel, Zinc Plated Steel, Stainless Steel, Cast Iron, polyurethane, Buna-N™, Bronze Filled PTFE
Noise level <sup>(2)</sup>	80 dB
Service Bulletin	SB 1134

- (1) Maximum air consumption with 75 psi (5 bar) air inlet pressure and 80 cpm.  
 (2) Maximum noise level measured at 3' (1 m) from the pump, 100 psi (7 bar) air pressure and free delivery.  
 (3) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

**Warning!** Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Lion™ 450 - 3:1 Pump Description

Medium pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required. Medium pressure pump is recommended for medium pumping distances.

Wall or floor mount only. Pump OD does not fit 2" bung adapter.

## Lion™ 450 - 3:1 Pump Models Available

- 1430-001** Lion™ 450 3:1 stub pump

## Lion™ 450 - 3:1 Pump Specifications

- 3.1. Pump will have a 3:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/2" NPT (F)
- 3.4. Pump will have a fluid inlet port of 1 1/2" NPT (F)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT (F)
- 3.6. Pump will have a free flow of 32 gal/min (120 l/min) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 30 to 180 psi (2 to 12.4 bar)
- 3.8. Pump will have an air consumption pressure at 100 psi (7 bar) & 28 cfm (800 NI/min)
- 3.9. Pump will not exceed 6 cycles per gallon
- 3.10. Pump will have a max fluid outlet pressure of 510 psi (36 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)
- 3.12. Pump will have a delivery of 12 gal/min (45 l/min) at 80 cpm

## Materials

- 4.1. The wetted materials will consist of Steel, Hard Chromed Steel, Zinc Plated Steel, Stainless Steel, Cast Iron, Polyurethane, Buna-N™, Bronze Filled PTFE

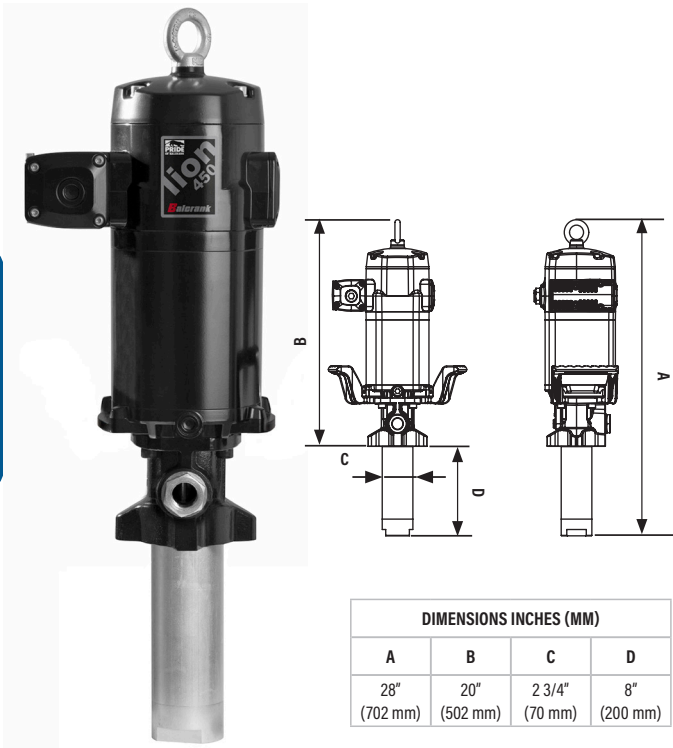
## Warranty

- 5.1. The Lion™ 450 3:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.



# Lion™ 450 - 6:1

Pumps  
Piston



## Overview

Medium pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

Medium/high pressure pump is recommended for longer pumping distances.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1430-002	Lion™ 450 6:1 stub pump

## Fluids

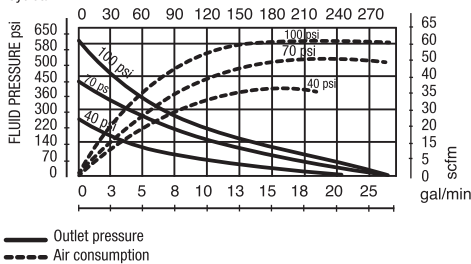
- Synthetic and mineral based lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

## Applications

- Heavy duty truck/fleet
- Railroad/mass transit vehicle maintenance
- In-plant high volume transfer
- Marine
- Mining vehicle maintenance
- Large automotive dealerships

## TEST FLUID: SAE 10

Cycles/min.



## TECHNICAL DATA

Pump Ratio	6:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption <sup>(1)</sup>	29 cfm (830 NI/min)
Max fluid outlet pressure <sup>(3)</sup>	1,020 psi (72 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Delivery at 80 cpm	7 gal/min (25 l/min)
Max free flow delivery	26 gal/min (98 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, hard chromed steel, steel, polyurethane, Buna-N™ and zinc
Noise level <sup>(2)</sup>	80 dB
Service Bulletin	SB 1135

(1) Maximum air consumption with 75 psi (5 bar) air inlet pressure and 80 cpm.

(2) Maximum noise level measured at 3' (1 m) from the pump, 100 psi (7 bar) air pressure and free delivery.

(3) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcraan recommends a minimum of 3 x safety factor.

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

**Warning!** Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcraan for specific system design performance and technical data.

## Lion™ 450 - 6:1 Pump Description

Medium pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

Medium/high pressure pump is recommended for longer pumping distances.

## Lion™ 450 - 6:1 Pump Models Available

- ☐ 1430-002 Lion™ 450 6:1 stub pump

## Lion™ 450 - 6:1 Pump Specifications

- 3.1. Pump will have a 6:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/2" NPT (F)
- 3.4. Pump will have a fluid inlet port of 1 1/2" NPT (F)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT (F)
- 3.6. Pump will have a free flow of 26 gal/min (98 l/min) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 30 to 180 psi (2 to 12.4 bar)
- 3.8. Pump will have an air consumption pressure at 75 psi (5 bar) & 29 cfm (830 NI/min)
- 3.9. Pump will not exceed 11 cycles per gallon
- 3.10. Pump will have a max fluid outlet pressure of 1,020 psi (72 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)
- 3.12. Pump will have a delivery rate of 7 gal/min (25 l/min) at 80 cpm

## Materials

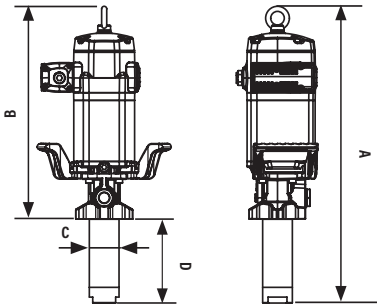
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

## Warranty

- 5.1. The Lion 450 6:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Lion™ 450 - 10:1

Pumps  
Piston



DIMENSIONS INCHES (MM)			
<b>1430-003</b>			
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
28" (702 mm)	20" (502 mm)	2" (54 mm)	8" (200 mm)
<b>1430-004</b>			
56 1/4" (1,430 mm)	19 7/8" (505 mm)	2 1/8" (54 mm)	36 13/32" (925 mm)

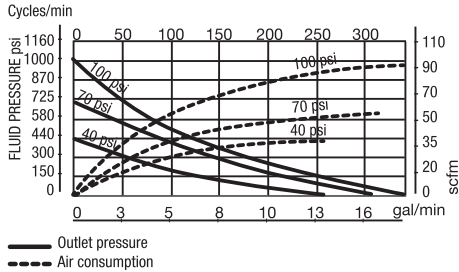
## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

## Applications

- Heavy duty truck/fleet
- Railroad/mass transit vehicle maintenance
- In-plant high volume transfer
- Marine
- Mining vehicle maintenance
- Large automotive dealerships

## TEST FLUID: SAE 10



## Overview

High pressure pump for oil systems where medium volume dispensing using simultaneous dispense points is required.

High pressure pump is recommended for long pumping distances and/or cold weather applications.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> <b>1430-003</b>	Lion™ 450 10:1 stub pump
<input type="checkbox"/> <b>1430-004</b>	Lion™ 450 10:1 drum pump
<input type="checkbox"/> <b>4411-032</b>	Bung Adapter

TECHNICAL DATA	
Pump Ratio	10:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	19
Air Consumption <sup>(1)</sup>	30 cfm (850 NI/min)
Max fluid outlet pressure <sup>(3)</sup>	1,700 psi (120 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Delivery at 80 cpm	4 gal/min (15 l/min)
Max free flow delivery @ 100 psi (7 bar)	18 gal/min (68 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, hard chromed steel, steel, polyurethane, Buna-N™ and zinc
Noise level <sup>(2)</sup>	80 dB
Service Bulletin	SB 1136

(1) Maximum air consumption with 75 psi (5 bar) air inlet pressure and 80 cpm.

(2) Maximum noise level measured at 3' (1 m) from the pump, 100 psi (7 bar) air pressure and free delivery.

(3) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

**Warning!** Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Lion™ 450 - 10:1 Pump Description

High pressure pump for oil systems where medium volume dispensing using simultaneous dispense points is required.

High pressure pump is recommended for long pumping distances and/or cold weather applications.

## Lion™ 450 - 10:1 Pump Models Available

- 1430-003** Lion™ 450 10:1 stub pump
- 1430-004** Lion™ 450 10:1 drum pump
- 4411-032** Bung Adapter

## Lion™ 450 - 10:1 Pump Specifications

- 3.1. Pump will have a 10:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid inlet port of 1 1/2" NPT(F)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT(F)
- 3.6. Pump will have a free flow of 18 gal/min (68 l/min) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 30 to 180 psi (2 to 12.4 bar)
- 3.8. Pump will have an air consumption pressure at 75 psi (5 bar) & 30 cfm (850 NI/min)
- 3.9. Pump will not exceed 19 cycles per gallon
- 3.10. Pump will have a max fluid outlet pressure of 1,700 psi (120 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)
- 3.12. Pump will have a delivery rate of 4 gal/min (15 l/min) at 80 cpm

## Materials

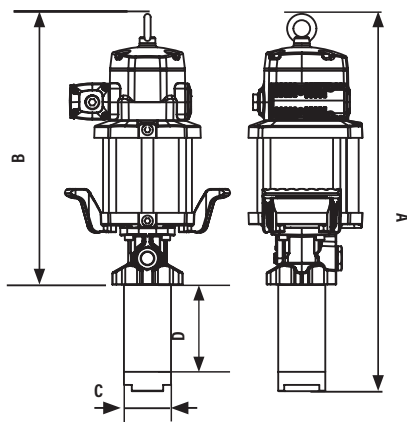
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

## Warranty

- 5.1. The Lion 450 10:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Lion™ 600 - 6:1

Pumps  
Piston



DIMENSIONS INCHES (MM)			
A	B	C	D
28 3/8" (721 mm)	20 23/64" (517 mm)	3 35/64" (90 mm)	8 1/32" (204 mm)

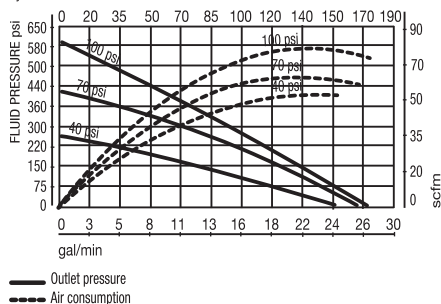
## Fluids

- Synthetic and mineral based
- Lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

## Applications

- Heavy duty truck/fleet
- Railroad/mass transit vehicle maintenance
- In-plant high volume transfer
- Marine
- Mining vehicle maintenance
- Large automotive dealerships

TEST FLUID: SAE 10  
Cycles/min



## Overview

Lion™ 600 - 6:1 operates at slow cycle rates for high volume applications. Medium/high pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

Medium/high pressure pump is recommended for longer pumping distances.

MODELS AVAILABLE	DESCRIPTION
1430-005	Lion™ 600 6:1 stub pump

TECHNICAL DATA	
Pump Ratio	6:1
Operating air pressure	30 to 175 psi (2 to 12 bar)
Cycles per gallon	6
Air Consumption <sup>(1)</sup>	39 cfm (1,100 l/min)
Max fluid outlet pressure <sup>(3)</sup>	1,020 psi (72 bar)
Air motor effective diameter	6" (150 mm)
Air motor stroke	4" (100 mm)
Delivery at 60 cpm	9 gal/min (35 l/min)
Max free flow delivery @ 100 psi (7 bar)	26 gal/min (100 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, aluminum, nickel, steel, polyurethane, Buna-N™ and zinc
Noise level <sup>(2)</sup>	80 dB
Service Bulletin	SB 1137

- (1) Maximum air consumption with 75 psi (5 bar) air inlet pressure and 60 cpm.
- (2) Maximum noise level measured at 3' (1 m) from the pump, 100 psi (7 bar) air pressure and free delivery.
- (3) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

**Warning!** Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Lion™ 600 - 6:1 Pump Description

Lion™ 600 - 6:1 operates at slow cycle rates for high volume applications. Medium/high pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

Medium/high pressure pump is recommended for longer pumping distances.

## Lion™ 600 - 6:1 Pump Models Available

- ❑ 1430-005 Lion™ 600 6:1 stub pump

## Lion™ 600 - 6:1 Pump Specifications

- 3.1. Pump will have a 6:1 ratio
- 3.2. Pump will have a 6" (150 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid inlet port of 1 1/2" NPT(F)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT(F)
- 3.6. Pump will have a free flow of 26 gal/min (100 l/min) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 30 to 175 psi (2 to 12 bar)
- 3.8. Pump will have an air consumption pressure at 75 psi (5 bar) & 39 cfm (1,100 NI/min)
- 3.9. Pump will not exceed 6 cycles per gallon
- 3.10. Pump will have a max fluid outlet pressure of 1,020 psi (72 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)
- 3.12. Pump will have a delivery rate of 9 gal/min (35 l/min) at 60 cpm

## Materials

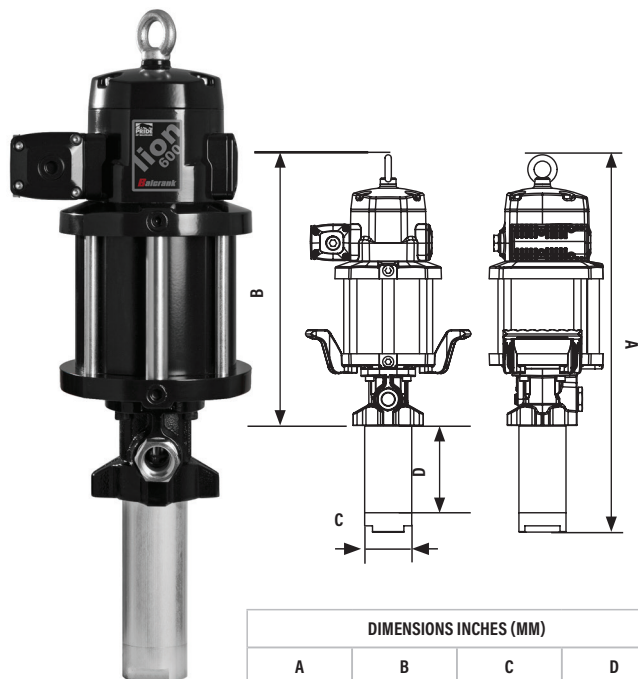
- 4.1. The wetted materials will consist of Cast Iron, Aluminum, Nickel, Steel, Polyurethane, Buna-N™ and Zinc

## Warranty

- 5.1. The Lion 600 6:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

# Lion™ 600 - 12:1

Pumps  
Piston



DIMENSIONS INCHES (MM)			
A	B	C	D
28 1/4" (716 mm)	20 1/3" (516 mm)	2 3/4" (70 mm)	8" (200 mm)

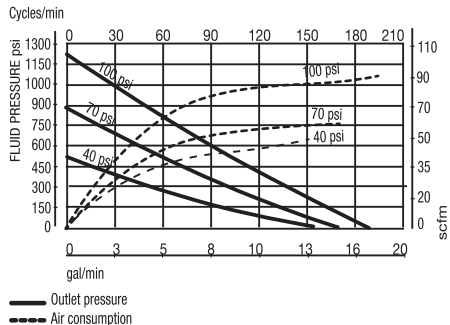
## Fluids

- Synthetic and mineral based lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

## Applications

- Heavy duty truck/fleet
- Railroad/mass transit vehicle maintenance
- In-plant high volume transfer
- Marine
- Mining vehicle maintenance
- Large automotive dealerships

TEST FLUID: SAE 10



## Overview

Lion™ 600 - 12:1 operates at slow cycle rates for large shops requiring long pumping distances. High pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

High pressure pump is recommended for long pumping distances and/or cold weather applications.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1430-006	Lion™ 600 12:1 stub pump

## TECHNICAL DATA

Pump Ratio	12:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption <sup>(1)</sup>	41 cfm (1,150 NI/min)
Max fluid outlet pressure <sup>(3)</sup>	2,040 psi (144 bar)
Air motor effective diameter	6" (150 mm)
Air motor stroke	4" (100 mm)
Delivery at 60 cpm	5 gal/min (20 l/min)
Max free flow delivery @ 100 psi (7 bar)	17 gal/min (65 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, hard chromed steel, steel, polyurethane and Buna-N™
Noise level <sup>(2)</sup>	80 dB
Service Bulletin	SB 1138

(1) Maximum air consumption with 75 psi (5 bar) air inlet pressure and 60 cpm.

(2) Maximum noise level measured at 3' (1 m) from the pump, 100 psi (7 bar) air pressure and free delivery.

(3) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3 x safety factor.

NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

**Warning!** Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

## Lion™ 600 - 12:1 Pump Description

Lion™ 600 - 12:1 operates at slow cycle rates for large shops requiring long pumping distances. High pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required.

High pressure pump is recommended for long pumping distances and/or cold weather applications.

## Lion™ 600 - 12:1 Pump Models Available

- ☐ 1430-006 Lion™ 600 12:1 stub pump

## Lion™ 600 - 12:1 Pump Specifications

- 3.1. Pump will have a 12:1 ratio
- 3.2. Pump will have a 6" (150 mm) effective diameter displacement air motor valve-in-piston design
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid inlet port of 1 1/2" NPT(F)
- 3.5. Pump will have a fluid outlet port of 3/4" NPT(F)
- 3.6. Pump will have a free flow of 17 gal/min (65 l/min) based on 100 psi (7 bar)
- 3.7. Pump will have an operating air pressure of 30 to 180 psi (2 to 12.4 bar)
- 3.8. Pump will have an air consumption pressure at 100 psi (7 bar) & 41 cfm (1,150 NI/min)
- 3.9. Pump will not exceed 11 cycles per gallon
- 3.10. Pump will have a max fluid outlet pressure of 2,040 psi (144 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)
- 3.12. Pump will have a delivery rate of 5 gal/m (20 l/min) at 60 cpm

## Materials

- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane and Buna-N™

## Warranty

- 5.1. The Lion 600 12:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.