

Contacts

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Product Substitution Procedures

Summary

- A. Provide products listed in Contract Documents, products by manufacturers listed in Contract Documents, and products meeting specified requirements.
 - 1. Contract Amount: Base on materials and products included in Contract Documents.
 - a. Where listed in Contract Documents, materials and products by manufacturers not listed will not be used without the Owner and Balcrank Corporation's approval of contractor's written request for substitution.
 - 2. Purpose: Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to no fault of Contractor.
 - a. Owner benefits either from a Contractor proposed reduction of the Contract amount or from a reduction in Contract time based on acceptance of proposed substitution.
 - b. List proposed cost or time reductions on request for substitution.
 - c. Requests not including a proposed cost or time reduction will not be considered unless Contractor submits supporting information indicating specified materials are not available.
- B. Procedures are described for requesting substitution of unlisted materials in lieu of materials named in Specifications or approved for use in addenda.

Contractor's Options

- A. Select product meeting referenced standard for products specified only by reference standard.
- B. Select product of any named manufacturer meeting specifications for products specified by naming one or more products or manufacturers.
- C. Submit request for substitution for product or manufacturer not specifically named where products or manufacturers are named in Specifications.
- D. Where terms "or equal," "or approved equal," or similar references are made, submit request for substitution for product or manufacturer not specifically named in Specifications.

Substitutions

- A. Prior to submittal of second Request for Payment Owner and Balcrank Corporation will consider formal requests for substitutions from Contractor as specified under 1.1 Summary.
 - 1. Owner and Balcrank Corporation will consider only one request for substitution for each material; where requests are denied Contractor will be required to provide specified materials.
 - 2. After payments begin, requests will be considered only when a product becomes unavailable through no fault of Contractor; more than one request for substitution will be considered if necessary.
 - 3. For products specified only by reference standard, select product and manufacturer meeting that standard and follow submittal requirements.
 - 4. For products specified by naming several products and/or manufacturers as an approved equivalent, selection will be made from those listed.
 - 5. For products specified by naming several products and/or manufacturers "or approved equal," the contractor selecting "or approved equal" items will follow submittal requirements.
 - 6. For products specified by naming only one product and manufacturer, there are no exceptions.
- B. Submittal requirements.
 - 1. Submit prior to bid separate approval request for each product supported with complete data, with drawings and samples as necessary, including:
 - a) Comparison of the qualities of the proposed substitution with that specified.
 - b) Changes required in other elements of the Work because of the substitution.
 - c) Effect on the construction schedule.
 - d) Cost data comparing the proposed substitution with the product specified.
 - e) Any required license fees or royalties.
 - f) Availability of maintenance service, and source of replacement materials.
 - 2. Balcrank Corporation and/or Owner will be the judge of the acceptability of the proposed substitution.
 - a) Lack of information and unfamiliarity of the product and manufacturer will automatically disqualify the substitution request.
 - b) Submit itemized comparison of proposed substitution with product specified and list significant variations.
 - c) Submit data relating to changes in construction schedule.

Product Substitution Procedures

- d) Note effect of substitution on other work, products, or separate contracts.
- e) Note if acceptance of substitution could require revision of Contract Documents, Drawings, details or Specifications.
- f) Include accurate cost data comparing proposed substitution with product and amount of net change in Contract price.
- 3. Include costs to other contractors and costs for revisions to Drawings, details or Specifications.
 - a) Substitutions will not be considered for acceptance when:
- 4. They are indicated or implied on submittals without a formal request from Contractor.
- 5. They are requested directly by a subcontractor or supplier.
- 6. Acceptance will require substantial revision of Contract Documents.
 - a) Substitute products will not be ordered without written acceptance of Owner and Balcrank Corporation.
 - b) Owner and Balcrank Corporation will determine acceptability of proposed substitutions and reserves right to reject proposals due to insufficient information.

Contractor's Representation

- A. Requests constitute a representation that Contractor:
 - 1. Has investigated proposed product and determined it meets or exceeds, in all respects, specified product.
 - 2. Will provide same warranty or longer warranty for substitution as for specified product.
 - 3. Will coordinate installation and make other changes that may be required for work to be complete in all respects.
 - 4. Waives claims for additional costs that subsequently become apparent.
 - 5. Will pay costs of changes to Contract Documents, Drawings, details and Specifications required by accepted substitutions.

Balcrank Corporation's Duties

- A. Review Contractor's requests for substitutions with reasonable promptness.
 - 1. Balcrank Corporation will recommend that Owner accept or reject substitution request.
 - 2. Upon request, Balcrank Corporation will provide cost for changes to Contract Documents, Drawings, Details, and Specifications required for substitutions.
- B. Notify Contractor in writing of decision to accept or reject requested substitution.

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®.
- 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.

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.

Oil Piston Pumps

Product Selection Matrix

	MAX. LINE LENGTH	MAX. FREE FLOW	FLUID INLET	FLUID OUTLET	RECOMMENDED FLUID TYPES
LYNX® 1:1					
	Up to 100' (30 m)*	10.6 gal/min (40 l/min)*	1" NPT(F)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils
LYNX® 1:1 STAINLESS STEEL					
	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
LYNX® 3:1					
	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
LYNX® 5:1 HD					
	Up to 150' (46 m)*	10 gal/min (38 l/min)*	1" NPT(F)	3/4" NPT(F)	Petroleum Based Oils, Synthetic Oils, Gear and ATF
PANTHER® 3:1					
	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
PANTHER® 5:1					
	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
TIGER® 6:1					
	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, Anti-freeze (Glycol), and Windshield Wash Fluids
LION™ 350 5:1					
	500' (152 m)*	8 gal/min (30 l/min)	1 1/2" NPT(F)	1/2" NPT(F)	Synthetic and Mineral Based Oils, Hydraulic Oil, Gear Oil, Transmission Fluid
LION™ 450 3:1					
	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
LION™ 450 6:1					
	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
LION™ 450 10:1					
	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
LION™ 600 6:1					
	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
LION™ 600 12:1					
	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.



LYNX® SERIES



LYNX® HD SERIES



PANTHER® SERIES



TIGER® SERIES



LION™ SERIES

Oil Piston Pumps

LYNX® 1:1 - 1:1 Stainless Steel Pump



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.

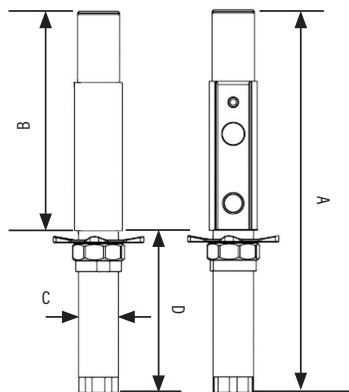
Synthetic and Mineral Based Fluid
Hydraulic Fluid
Transmission Fluid
Anti-freeze
Windshield Wash

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.

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

Pressure relief valve kit 3120-086 for this pump not included.



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

TECHNICAL DATA	
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) ⁽¹⁾	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 Fluid outlet 1160-008	3/4" NPT(F) 3/4" NPT(F)
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 Service Bulletin 1160-008	SB 1102 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.

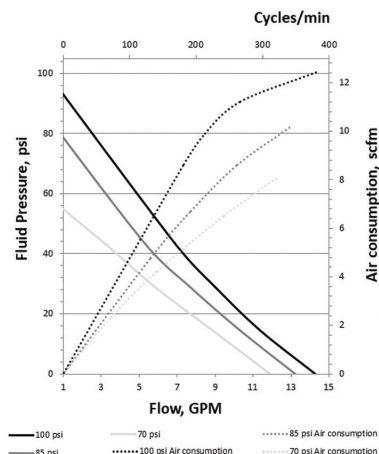
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

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.

MODELS AVAILABLE	DESCRIPTION
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
3120-086	Kit, Pressure Relief, 3/4", 850 psi (59 bar)



Oil Piston Pumps

LYNX® 1:1 - 1:1 Stainless Steel Pump

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

- | | | |
|--------------------------|-----------------|--|
| <input type="checkbox"/> | 1110-010 | 1:1 Bare carbon Steel stub pump with bung adapter |
| <input type="checkbox"/> | 1110-009 | 1:1 Bare carbon Steel drum pump with bung adapter |
| <input type="checkbox"/> | 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.

Oil Piston Pumps

LYNX® 3:1 Pump

The LYNX® 3:1 ratio double acting pump is engineered for outstanding performance and reliability to dispense lubricating oils and similar products.

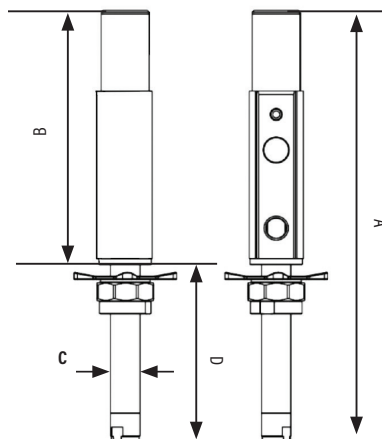
Synthetic and Mineral Based Lubricants Hydraulic Fluid Transmission Fluid

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.

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

Pressure relief valve kit 3120-086 for this pump, not included.



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)

TECHNICAL DATA	
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) ⁽¹⁾	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.

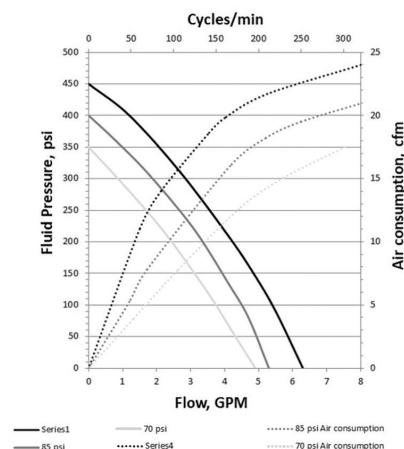
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

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.

MODELS AVAILABLE	DESCRIPTION
1110-007	3:1 Bare carbon steel stub pump with bung adapter
3120-086	Kit, Pressure Relief, 3/4", 850 psi (59 bar)



Oil Piston Pumps

LYNX® 3:1 Pump

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.

Oil Piston Pumps

LYNX® 5:1 HD Pump

The LYNX® 5:1 HD ratio double acting pump is engineered for outstanding performance and reliability. The LYNX® 5:1 HD pump is designed to dispense lubricating oils and gear oils in piped systems up to SAE 90.

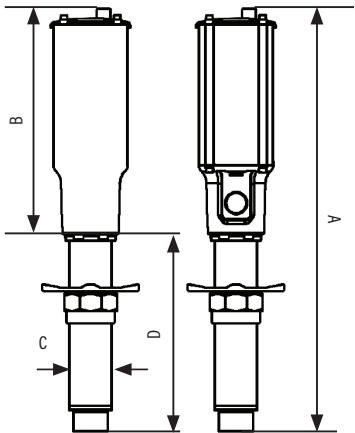
Synthetic and Mineral Based Lubricants Hydraulic Fluid Transmission Fluid Gear Oil

The LYNX® 5:1 HD series pump is perfect for medium volume users requiring an economy unit for roll-around synthetics, gear oil and standard mineral oil dispense packages. This pump can also be used for small to medium shops supplying overhead hose reels with a maximum overall flow rate of 5 gpm.

Applications

- Small to medium sized tank packages
- Low to medium volume maintenance shops
- Small car dealerships
- Quick lubes
- Roll-around gear oil packages

Pressure relief valve kit included with this pump.



Dimensions inches (MM)			
1110-012			
A	B	C	D
19 11/16" (500 mm)	10 5/8" (270 mm)	2" (50 mm)	9 1/16" (230 mm)

TECHNICAL DATA	
Operating air pressure	60-145 psi (4-10 bar)
Cycles per gallon	20 cyc/gal (5.28 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) ⁽¹⁾	725 psi (50 bar)
Effective Air Piston Diameter	3" (80 mm)
Free flow pump delivery with SAE 10W30 oil, 68° F (20° C), 150 psi (10 bar) air pressure	24 gal/min (90.85 l/min)
Air inlet	1/4" NPT(F)
Fluid inlet	1" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Aluminum, Buna-N™, Zamak, Steel, and Polyurethane
Service Bulletin	SB 1128

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.

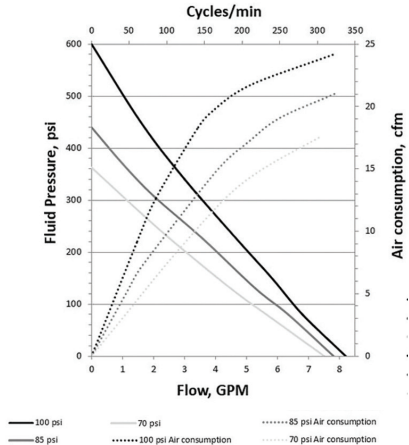
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

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.

MODELS AVAILABLE	DESCRIPTION
1110-012	5:1 Bare carbon steel stub pump with bung adapter



Oil Piston Pumps

LYNX® 5:1 HD Pump

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

- | | | |
|--------------------------|-----------------|---|
| <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 |

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.

Oil Piston Pumps

PANTHER® HP 3:1 Pumps

The Panther® HP 3:1 ratio double acting pump is engineered for outstanding performance and reliability for dispensing lubricating oils and similar products up to SAE 90.

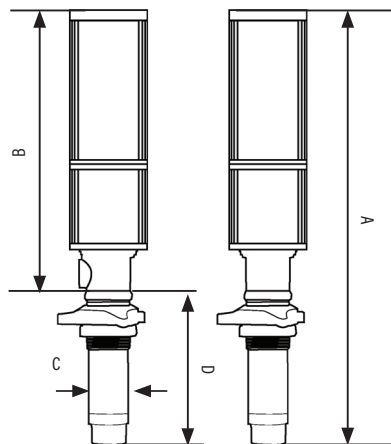
Synthetic and Mineral Based Lubricants Hydraulic Fluid Transmission Fluid

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.

Applications

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

Pressure relief valve kit included with this pump.



Dimensions inches (MM)			
1130-015 & 1130-020			
A	B	C	D
23.5" (523.9 mm)	14 3/8" (285 mm)	2 1/8" (54 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)

TECHNICAL DATA

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) ⁽¹⁾	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.

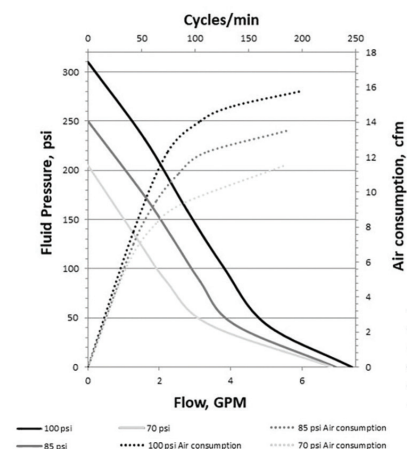
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

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.

MODELS AVAILABLE	DESCRIPTION
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



Oil Piston Pumps

PANTHER® HP 3:1 Pumps

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

- | | | |
|--------------------------|-----------------|---|
| <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 |

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.

Oil Piston Pumps

PANTHER® HP 5:1 Pumps

The Panther® HP 5:1 ratio double acting pump is engineered for outstanding performance and reliability for dispensing lubricating oils and similar products up to SAE 90.

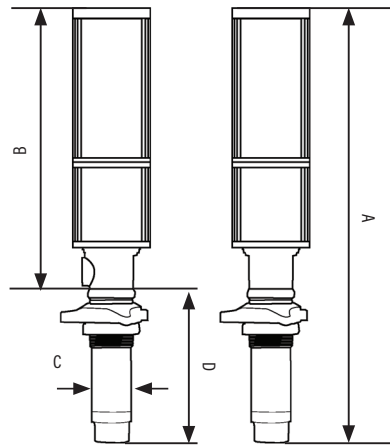
Synthetic and Mineral Based Lubricants Hydraulic Fluid Transmission Fluid Gear Oil

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.

Applications

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

Pressure relief valve kit included with this pump.



Dimensions inches (MM)			
1130-016 & 1130-021			
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)
1130-018			
21 8/9" (555.6 mm)	14 3/8" (285 mm)	1 7/8" (476 mm)	7 1/2" (190.5 mm)

TECHNICAL DATA

Operating air pressure	10-150 psi (0.7-10 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) ⁽¹⁾	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.

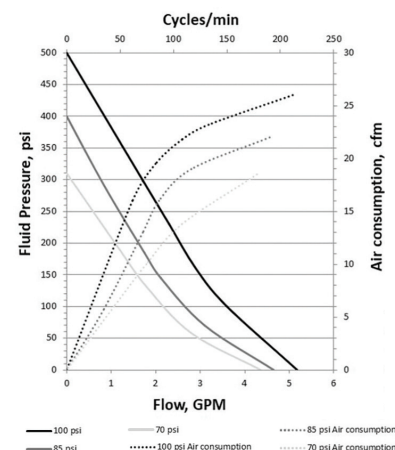
(1) Ensure that all hose fittings and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x safety factor.

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.

MODELS AVAILABLE	DESCRIPTION
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



Oil Piston Pumps

PANTHER® HP 5:1 Pumps

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

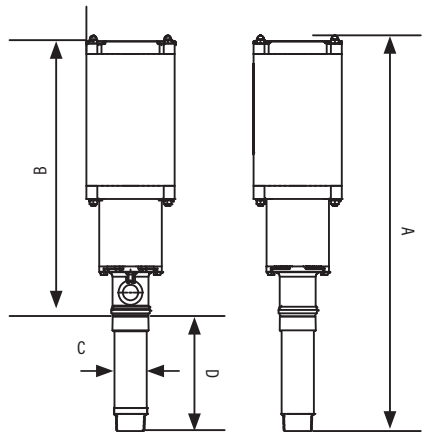
- 5.1. The Panther® HP 5:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Oil Piston Pumps

TIGER® HP 6:1 Pumps

The Tiger® HP 6:1 ratio double acting pump is engineered for outstanding performance and reliability for dispensing lubricating oils and similar products up to SAE 90.

Pumps Piston



Dimensions inches (MM)			
A	B	C	D
21 5/7" (544.5 mm)	16 1/4" (412.9 mm)	2 1/8" (54 mm)	4" (101.6 mm)

Synthetic and Mineral Based Lubricants Hydraulic Fluid Transmission Fluid Gear Oil

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 of 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.

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

Pressure relief valve kit included with this pump.

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

TECHNICAL DATA	
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) ⁽¹⁾	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

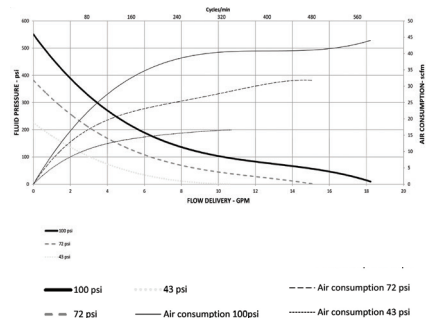
NOTE: Thermal expansion of the fluid in a distribution system can cause an increase in system pressure that can damage lubrication system components. Use pressure relief valve kit included with this pump.

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

MODELS AVAILABLE	DESCRIPTION
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



Oil Piston Pumps

TIGER® HP 6:1 Pumps

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:

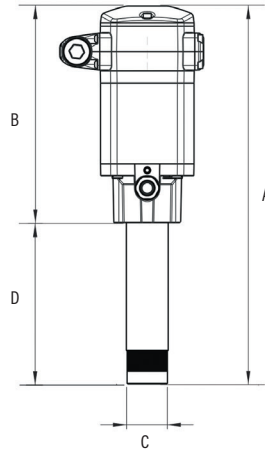
- 4.1. 1130-019, 1130-025 & 1130-026 Carbon Steel, Buna-N™, Stainless Steel, Aluminum, and Ultrathane®.
- 4.2. 1160-007 Stainless Steel and Viton®

Warranty

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

Oil Piston Pumps

Lion™ 350 - 5:1 Pump



Dimensions inches (MM)			
1430-010			
A	B	C	D
18" (457 mm)	10" (254 mm)	1-1/2" NPT (F)	8" (200 mm)
1430-012			
47" (1194 mm)	39" (991 mm)	1-1/2" NPT (F)	36" (925 mm)

Synthetic and Mineral Based Oils Hydraulic Oil Gear Oil Transmission Fluid

Double-acting, air operated, medium pressure, heavy-duty pumps for dispensing lubricants in medium to large size installations, which may include simultaneous dispense points. Built in port for the included pressure relief valve kit. (3120-214)

Applications

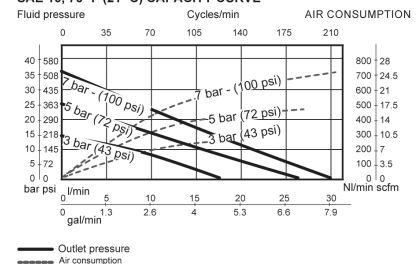
- Railroad and mass transit vehicle maintenance
- Fleet service facilities
- Marine
- Auto and truck dealerships
- Mining and construction
- Lube truck

Pressure relief valve kit included with this pump.

TECHNICAL DATA	
Pump ratio	5:1
Operating air pressure	30 to 175 psi (2 to 12 bar)
Air Consumption ⁽¹⁾	12.4 CFM (350 NI/min)
Maximum pressure	170 psi (12 bar)
Air motor effective diameter	3.25" (80 mm)
Air motor stroke	3.15" (80 mm)
Delivery at 80 cpm	3.2 gal/min at 100 psi (12 l/min at 5 bar)
Flow rate	8 gal/min (30 l/min)
Air inlet	3/8" NPT (F)
Fluid inlet (stub pump only)	1 1/2" NPT (F)
Fluid outlet	1/2" NPT (F)
Wetted materials	Steel, Hard Chromed Steel, Polyurethane, NBR, Aluminum
Service Bulletin	SB 1155

MODELS AVAILABLE	DESCRIPTION
1430-010	Lion™ 350 5:1 Stub Pump Bung
1430-012	Lion™ 350 5:1 Drum Pump

SAE 10, 70 °F (21 °C) CAPACITY CURVE



Oil Piston Pumps

Lion™ 350 - 5:1 Pump

Lion™ 350 - 5:1 Pump Description

Double-acting, air operated, medium pressure, heavy-duty pumps for dispensing lubricants in medium to large size installations, which may include simultaneous dispense points. Built in port for the included pressure relief valve kit. (3120-214)

Lion™ 350 - 5:1 Models Available

- ☐ **1430-010** Lion™ 350 5:1 Stub Pump Bung
- ☐ **1430-012** Lion™ 350 5:1 Drum Pump

Lion™ 350 - 5:1 Pump Specifications

- 3.1. Pump will have a 5:1 ratio
- 3.2. Pump will have a 3.25" (80 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 1/2" NPT (F)
- 3.5. Pump will have a fluid outlet port of 1/2" NPT (F)
- 3.6. Pump will have a flow rate of 8 gal/min (30 l/min)
- 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 of 12.4 CFM (350 NI/min)
- 3.9. Pump will have a maximum pressure of 170 psi 12 (bar)

Materials

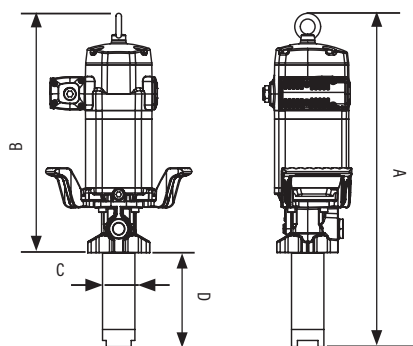
- 4.1. The wetted materials will consist of Steel, Hard Chromed Steel, Polyurethane, NBR, Aluminum

Warranty

- 5.1. The Lion™ 350 - 5:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Oil Piston Pumps

Lion™ 450 - 3:1 Pump



Dimensions inches (MM)			
A	B	C	D
27 7/8" (707 mm)	19 7/8" (505 mm)	3 35/64" (90 mm)	8 1/32" (204 mm)

Synthetic and Mineral Based Lubricants Hydraulic Fluid Gear Oil Transmission Fluid

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

Applications

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

Pressure relief valve kit included with this pump.

Wall or floor mount only. Pump OD does not fit 2" bung adapter. See pg. 32 for mounting bracket (4411-031).

TECHNICAL DATA

Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	6
Air Consumption ⁽¹⁾	28 CFM (800 NI/min)
Max fluid outlet pressure ⁽³⁾	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 ⁽²⁾	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 3x 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.

MODELS AVAILABLE

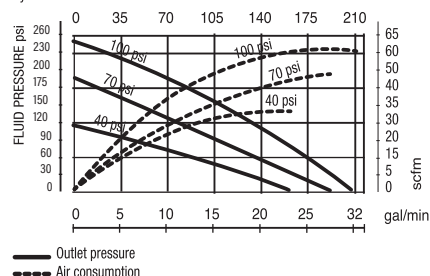
1430-001

DESCRIPTION

Lion™ 450 3:1 stub pump

TEST FLUID: SAE 10

Cycles/min.



Oil Piston Pumps

Lion™ 450 - 3:1 Pump

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

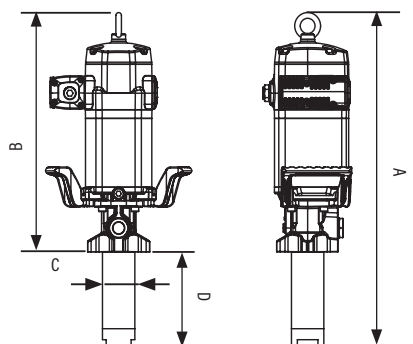
Materials

- 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.

Oil Piston Pumps Lion™ 450 - 6:1 Pump



Dimensions inches (MM)			
A	B	C	D
28" (702 mm)	20" (502 mm)	2 3/4" (70 mm)	8" (200 mm)

Synthetic and Mineral Based Lubricants Hydraulic Fluid Gear Oil Transmission Fluid

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.

Applications

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

Pressure relief valve kit included with this pump.

Wall or floor mount only. Pump OD does not fit 2" bung adapter. See pg. 32 for mounting bracket (4411-031).

TECHNICAL DATA	
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption ⁽¹⁾	29 CFM (830 NL/min)
Max fluid outlet pressure ⁽³⁾	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 ⁽²⁾	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. Balcrank recommends a minimum of 3x 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.

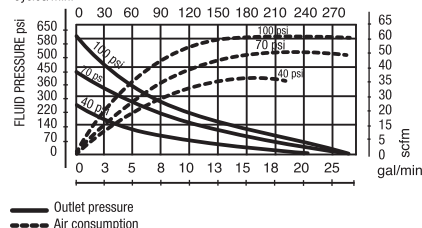
Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

MODELS AVAILABLE	DESCRIPTION
1430-002	Lion™ 450 6:1 stub pump

TEST FLUID: SAE 10

Cycles/min.



Oil Piston Pumps

Lion™ 450 - 6:1 Pump

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

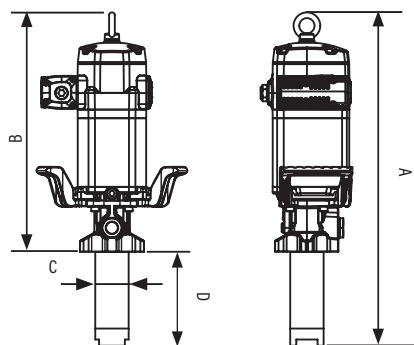
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

Warranty

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

Oil Piston Pumps

Lion™ 450 - 10:1 Pumps



Dimensions inches (MM)			
1430-003			
A	B	C	D
28" (702 mm)	20" (502 mm)	2 1/8" (54 mm)	8" (200 mm)
1430-004			
56 1/4" (1430 mm)	19 7/8" (505 mm)	2 1/8" (54 mm)	36 13/32" (925 mm)

Synthetic and Mineral Based Lubricants Hydraulic Fluid Gear Oil Transmission Fluid

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.

Applications

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

Pressure relief valve kit included with this pump.

Pump bung is mountable using 4411-032

TECHNICAL DATA	
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	19
Air Consumption ⁽¹⁾	30 CFM (850 NI/min)
Max fluid outlet pressure ⁽³⁾	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	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 ⁽²⁾	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 3x 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.

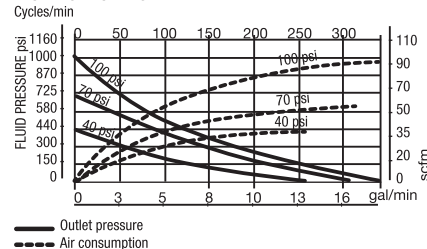
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

MODELS AVAILABLE	DESCRIPTION
1430-003	Lion™ 450 10:1 stub pump
1430-004	Lion™ 450 10:1 drum pump

TEST FLUID: SAE 10



Oil Piston Pumps

Lion™ 450 - 10:1 Pumps

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

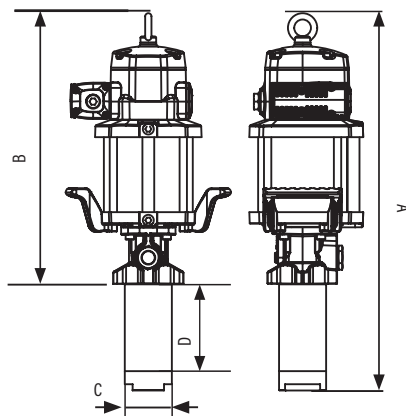
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

Warranty

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

Oil Piston Pumps

Lion™ 600 - 6:1 Pump



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)

Synthetic and Mineral Based Lubricants Hydraulic Fluid Gear Oil Transmission Fluid

Medium/high pressure pump for oil systems where high volume dispensing using simultaneous dispense points is required. This pump operates at slow cycle rates for high volume applications. Medium/high pressure pump is recommended for longer pumping distances.

Applications

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

Pressure relief valve kit included with this pump.

Wall or floor mount only. Pump OD does not fit 2" bung adapter. See pg. 32 for mounting bracket (4411-031).

TECHNICAL DATA	
Operating air pressure	30 to 175 psi (2 to 12 bar)
Cycles per gallon	6
Air Consumption ⁽¹⁾	39 CFM (1,100 NI/min)
Max fluid outlet pressure ⁽³⁾	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	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 ⁽²⁾	80 dB
Service Bulletin	SB 1137

- (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 3x 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.

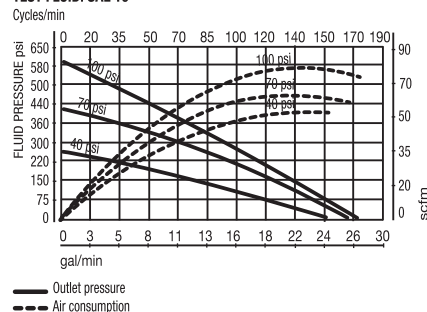
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

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

TEST FLUID: SAE 10



Oil Piston Pumps

Lion™ 600 - 6:1 Pump

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

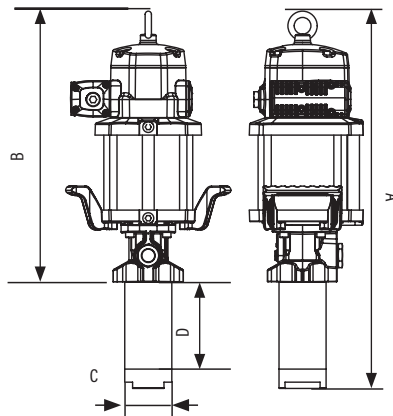
- 5.1. The Lion 600 6:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Oil Piston Pumps

Lion™ 600 - 12:1 Pump



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)

Synthetic And Mineral Based Lubricants Hydraulic Fluid Gear Oil Transmission Fluid

High pressure pump and high-volume, can be used with simultaneous dispense points. This pump operates at slow cycle rates for large shops requiring long pumping distances applications or when cold weather or low air pressure could limit pump performance.

Applications

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

Pressure relief valve kit included with this pump.

Wall or floor mount only. Pump OD does not fit 2" bung adapter. See pg. 32 for mounting bracket (4411-031).

TECHNICAL DATA	
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption ⁽¹⁾	41 CFM (1,150 NI/min)
Max fluid outlet pressure ⁽³⁾	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	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 ⁽²⁾	80 dB
Service Bulletin	SB 1138

(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 3x 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.

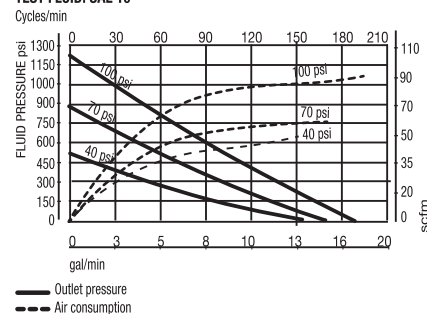
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

MODELS AVAILABLE	DESCRIPTION
1430-006	Lion™ 600 12:1 stub pump

TEST FLUID: SAE 10



Oil Piston Pumps

Lion™ 600 - 12:1 Pump

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.



Panther HP 50:1 Pump Application

Grease Piston Pumps

Product Selection Matrix

MAX. SIMUL. DISPENSE POINTS	MAX. LINE LENGTH	MAX. - FREE FLOW	AIR INLET	FLUID OUTLET	RECOMMENDED FLUID TYPES
LYNX® 55:1					
1	50' (50 m)	1.2 lb/min (0,5 kg/min)	1/4" NPT	1/4" NPT	Up to NLGI-2 grease
PANTHER® 50:1					
1-2*	100' (30 m)	3.4 lb/min (1.54 kg/min)	1/4" NPT	1/4" NPT	Up to NLGI-2 grease
LION™ 350 60:1					
1-2	250' (75 m)	4.4lb/min (2 kg/min)	3/8" NPT	3/8" NPT	Up to NLGI-2 grease
LION™ 450 25:1					
1	250' (75 m)	35 lb/min (16 kg/min)	1/2" NPT	1/2" NPT	Up to NLGI-2 grease High viscosity oil
LION™ 450 40:1					
4	400' (120 m)	24 lb/min (11 kg/min)	1/2" NPT	1/2" NPT	Up to NLGI-2 grease
LION™ 450 70:1					
4	600' (180 m)	16 lb/min (725 kg/min)	1/2" NPT	1/2" NPT	Up to NLGI-2 grease
LION™ 600 12:1					
1	30' (10 m)	88 lb/min (40 kg/min)	1/2" NPT	1" NPT	Up to NLGI-2 grease
LION™ 600 80:1					
4	800' (240m)	18 lb/min (8 kg/min)	1/2" NPT	1/2" NPT	Up to NLGI-2 grease

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

Always ensure hoses, fittings, and piping are rated for fluid outlet pressures. Balcrank recommends a minimum of 3x the safety factor.

Grease viscosity above NLGI-2 requires use of double post RAM on pg. 54. Contact Balcrank for product recommendations.



LYNX® SERIES

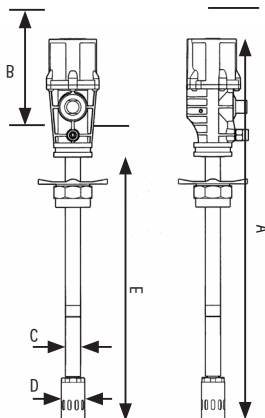


PANTHER® SERIES



LION™ SERIES

Grease Piston Pumps LYNX® 55:1 Pumps



Dimensions inches (MM)				
1150-022				
A	B	C	D	E
24.40" (620 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	16.5" (418 mm)
1150-023				
36.62" (930 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	28.65" (728 mm)
1150-024				
44.12" (1120 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	36.14" (918 mm)

Grease up to NLGI-2

Designed for 25-35, 120, and 400 lb. drums, portable use, and single point dispense. Ideal for the low volume user for grease fittings on smaller vehicles. LYNX® grease pumps are double acting positive displacement capable of delivering up to 1.2 lbs. (.54 kg) per minute.

Applications

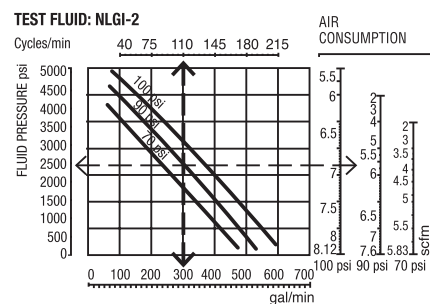
- Roll-around unit for small vehicle grease points
- Agriculture/farm implements
- Small auto/truck shops
- Tire & transmission shops
- In-plant low volume use

TECHNICAL DATA	
Pump ratio	55:1
Continuous duty free flow	7 lbs/min
Cycles per lb @ 100 psi (7 bar) free flow	318
Pump delivery, 100 psi (7 bar) air pressure and free flow	0.70 lb/min (0.32 kg/min)
Operating air pressure range	20-140 psi (1.5-10 bar)
Max fluid stall pressure @ 140 psi (10 bar) air	7700 psi (550 bar)
Effective Air Piston Diameter	2.75" (70 mm)
Air motor stroke	1.5" (38 mm)
Air consumption 90 psi (6 bar) & 110 cycles per minute	5.8 SCFM
Air inlet	1/4" NPT(F)
Fluid outlet	1/4" NPT(F)
Wetted materials	Steel, Zinc, Aluminum, Buna-N™, PTFE (Teflon®)
Noise	92 dB
Service Bulletin	SB 1116

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

Verify fluid compatibility with MSDS sheets.
Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1150-022	LYNX® 55:1 Grease 25-35 lbs
1150-023	LYNX® 55:1 Grease 120 lbs
1150-024	LYNX® 55:1 Grease 400 lbs



Grease Piston Pumps

LYNX® 55:1 Pumps

Panther® HP 55:1 Pump Description

Designed for 25-35, 120 and 400 lb. drums, portable use, and single point dispense. Ideal for the low volume user for grease fittings on smaller vehicles. LYNX grease pumps are double acting positive displacement capable of delivering up to 1.2 lbs. per minute.

Panther® HP 55:1 Pump Models Available

- ☐ **1150-022** 55:1 LYNX Grease 25-35 lbs
- ☐ **1150-023** 55:1 LYNX Grease 120 lbs
- ☐ **1150-024** 55:1 LYNX Grease 400 lbs

Panther® HP 55:1 Pump Specifications

- 3.1. Pump will have a 55:1 ratio
- 3.2. Pump will have a 2.75" (70 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 outlet port of 1/4" NPT(F)
- 3.5. Pump will have a free flow of 1.2 lb/min (0.5 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 20-140 psi (1.5-10 bar)
- 3.7. Pump will have an air consumption pressure at 90 psi (6 bar) & 110 cycles per minute for 5.8 SCFM
- 3.8. Pump will have a maximum fluid stall pressure of 7,700 psi (550 bar) at 140 psi (10 bar) air
- 3.9. Pump will not exceed 318 cycles per pound
- 3.10. Pump will have an air motor stroke of 1.5" (38 mm)
- 3.11. Pump will have a continuous duty free flow of 7 lb/min

Materials

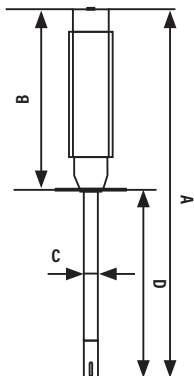
- 4.1. The wetted materials will consist of Steel, Zinc, Aluminum, Buna-N™, PTFE

Warranty

- 5.1. The LYNX® HP Series 55:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Panther® HP 50:1 Pumps



Dimensions inches (MM)			
1150-009			
A	B	C	D
36.75" (933 mm)	18.75" (476 mm)	1.25" (31.75 mm)	18" (457 mm)
1150-010			
46.75" (1187 mm)	18.75" (476 mm)	1.25" (31.75 mm)	28" (711 mm)
1150-011			
52.75" (1340 mm)	18.75" (476 mm)	1.25" (31.75 mm)	34" (834 mm)

Grease up to NLGI-2

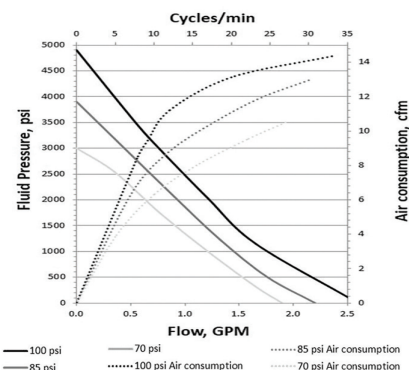
Designed for lower volume users up to 2 dispense points. Designed for 25-35, 120, and 400 lb. drums. Ideal for lower volume grease fittings on trucks and farm implements. Panther® pump is a double acting positive displacement capable of delivering up to 3.4 lbs. (1.54 kg) per minute.

Applications

- Roll-around unit for small vehicle grease points
- Agriculture/farm implements
- Small auto/truck shops
- Tire & transmission shops
- In-plant low volume use

TECHNICAL DATA	
Pump ratio	50:1
Continuous duty free flow	2 lb/min
Cycles per lb @ 100 psi (7 bar) free flow	70
Pump delivery with NLGI-2, 75° F (23.8° C), 100 psi (7 bar) air pressure and free flow	3.4 lb/min (1.54 kg/min)
Operating air pressure range	40-150 psi (2.8-10 bar)
Max fluid stall pressure @ 150 psi (10 bar) air	7500 psi (517 bar)
Effective Air Piston Diameter	2 1/2" (63.5 mm)
Air motor stroke	3.25" (83 mm)
Air consumption 100 psi (7 bar) & 1.5 lb/min (.68 kg/min)	14.5 SCFM
Air inlet	1/4" NPT(F)
Fluid outlet	1/4" NPT(F)
Wetted materials	Stainless Steel, Carbon Steel, Brass, Aluminum, Delrin®, Ultrathane®, and Buna-N™
Noise	92 dB
Service Bulletin	SB 1063

MODELS AVAILABLE	DESCRIPTION
1150-009	Panther® HP 50:1 bare 25-35 lbs
1150-010	Panther® HP 50:1 bare 120 lbs
1150-011	Panther® HP 50:1 bare 400 lbs



NOTE: Pumping distance and pipe diameter will effect dispensing performance.

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

Grease Piston Pumps

Panther® HP 50:1 Pumps

Panther® HP 50:1 Pump Description

Designed for lower volume users up to 2 dispense points. Designed for 25-35, 120 and 400 lb. drums. Ideal for lower volume grease fittings on trucks and farm implements. Panther® pump is a double acting positive displacement capable of delivering up to 3.4 lbs. per minute.

Panther® HP 50:1 Pump Models Available

- ☐ **1150-009** 50:1 Panther® HP bare 25-35 lbs
- ☐ **1150-010** 50:1 Panther® HP bare 120 lbs
- ☐ **1150-011** 50:1 Panther® HP bare 400 lbs

Panther® HP 50:1 Pump Specifications

- 3.1. Pump will have a 50:1 ratio
- 3.2. Pump will have a 2 1/2" (63.5 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 1/4" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1/4" NPT(F)
- 3.5. Pump will have a free flow of 3.4 lb/min (1.54 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 40-150 psi (2.8-10 bar)
- 3.7. Pump will have an air consumption pressure of 14.5 SCFM at 100 psi (7 bar) & 1.5 lb/min (.68 kg/min)
- 3.8. Pump will have a maximum fluid stall pressure of 7,500 psi (517 bar)
- 3.9. Pump will not exceed 70 cycles per pound
- 3.11. Pump will have an air motor stroke of 3.25" (83 mm)
- 3.12. Pump will have a continuous duty free flow of 2 lbs/min

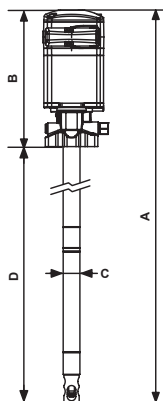
Materials

- 4.1. The wetted materials will consist of Stainless Steel, Carbon Steel, Brass, Aluminum, Delrin®, Ultrathane®, and Buna-N™

Warranty

- 5.1. The Panther™ HP 50:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps Lion™ 350 60:1 Pumps



Dimensions inches (MM)			
1450-013			
A	B	C	D
31.6" (803 mm)	11.25" (287 mm)	1.66" (35 mm)	20.3" (516 mm)
1450-012			
A	B	C	D
40" (1017 mm)	11.25" (287 mm)	1.66" (35 mm)	28.7" (730 mm)
1450-011			
A	B	C	D
47.7" (1,212 mm)	11.25" (287 mm)	1.66" (35 mm)	36.4" (925 mm)

Grease up to NLGI-2

Designed for 35 lb, 120, and 400 lb. containers. Ideal for the users that need reliable grease delivery and medium length systems that have multiple dispense points. This Lion grease pump delivers up to 4.4 lb (2 kg) per minute.

Applications

- Agriculture/farm implements
- Small auto/truck shops
- Tire & transmission shops
- In-plant medium volume use
- Mining and construction
- Truck fleets
- Railroad/Mass transit
- Lube trucks
- Marine

TECHNICAL DATA

Pump ratio	60:1
Cycles per lb/min @ 100 psi (7 bar) free flow	50
Operating air pressure range	20-145 psi (1.5-10 bar)
Max pump delivery	4.4 lb/min (2 kg/min)
Pump delivery with NLGI-2, 68° F (20° C), 70 psi (5 bar) air pressure and 80 cycles per minute	1.1 lbs/min (500 g/min)
Max fluid stall pressure	8,700 psi (600 bar)
Air inlet	3/8" NPT(F)
Fluid outlet	3/8" NPT(F)
Effective Air Piston Diameter	3.15" (80 mm)
Wetted materials	Cast Iron, Hard Chromed Steel, Steel, UHMWPE, NBR, PTFE, Viton®
Service Bulletin	SB 1153

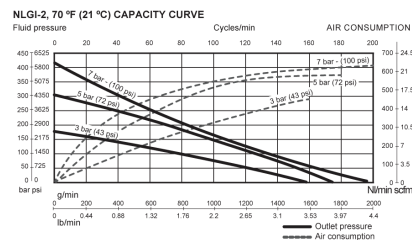
Warning! Do not use any Lion™ series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.
Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE

DESCRIPTION

1450-013	Lion™ 60:1 Grease 25-35 lbs
1450-012	Lion™ 60:1 Grease 120 lbs
1450-011	Lion™ 60:1 Grease 400 lbs



Grease Piston Pumps

Lion™ 350 60:1 Pumps

Lion™ 350 60:1 Pump Description

Designed for 35, 120 and 400 lb. containers. Ideal for the users that need reliable grease delivery and medium length systems that have multiple dispense points. This Lion grease pump delivers up to 4.4 lb/min (2 kg/min).

Lion™ 350 60:1 Pump Models Available

- ☐ **1450-013** 60:1 Lion™ 350 bare 25-35 lbs
- ☐ **1450-012** 60:1 Lion™ 350 bare 120 lbs
- ☐ **1450-011** 60:1 Lion™ 350 bare 400 lbs

Lion™ 350 60:1 Pump Specifications

- 3.1. Pump will have a 60:1 ratio
- 3.2. Pump will have a 3.15" (80 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 3/8" NPT(F)
- 3.4. Pump will have a fluid outlet port of 3/8" NPT(F)
- 3.5. Pump will have a pump delivery of 4.4 lb/min (2 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 20-145 psi (1.5-10 bar)
- 3.7. Pump will have a maximum fluid stall pressure of 8,700 psi (600 bar)
- 3.8. Pump will not exceed 50 cycles per pound
- 3.9. Pump will have a delivery of 1.1 lbs/min (500 g/min) @ 70 psi (5 bar) and 80 cpm

Materials

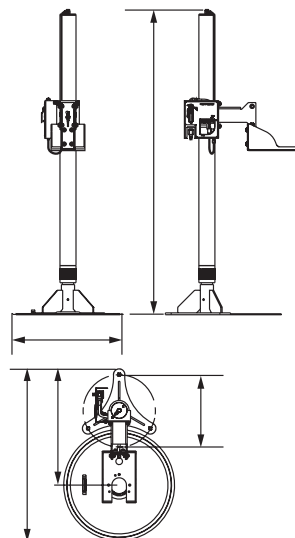
- 4.1. The wetted materials will consist of Cast iron, Hard chromed steel, Steel, UHMWPE, NBR, PTFE, Viton®

Warranty

- 5.1. The Lion™ 350 60:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ 350 60:1 Inductor



Dimensions inches (MM)				
A	B Lowered/ Raised	C	D	E
23.25" (588 mm)	58" (1470 mm) 94.5" (2400 mm)	35.75" (910 mm)	24.03" (617 mm)	15" (381 mm)

Grease up to NLGI-2

Lion™ 350 60:1 grease pump is used with 120 and 400 lb drums. The air operated pump hoist lifts and lowers the pump, making drum changes easier, faster and safer. The pumps lower end is rigidly fixed to a follower plate with a single rubber lip. The weight of the pump, pump bracket and follower plate plus atmospheric pressure push the assembly against the grease eliminating channeling and air pockets, keeping grease free from contaminants, minimizing waste, and aiding pump priming.

Applications

- Agriculture/farm implements
- Small auto/truck shops
- In-plant medium volume use
- Truck fleets
- Lube trucks
- Marine

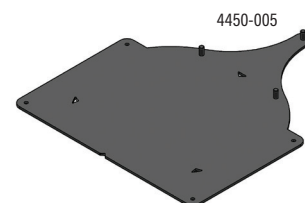
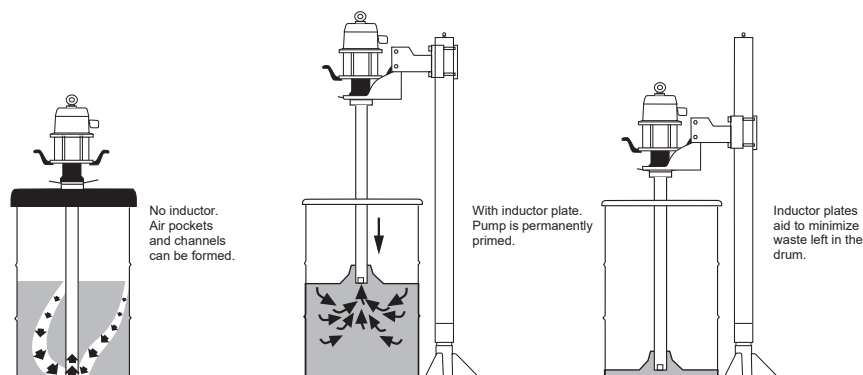
May require air supply fitting 3270-055

TECHNICAL DATA	
Diameter of the pneumatic cylinder	3" (75 mm)
Stroke of the pneumatic cylinder	36.6" (930 mm)
Minimum height of equipment	58" (1,470 mm)
Maximum height of equipment	94.5" (2,400 mm)
Air inlet	1/2" NPT(M)
Maximum air pressure	116 psi (8 bar)
Service Bulletin	SB 4228

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1451-009	Package, Lion™ 350, 60:1 Inductor Includes: 1450-012 Lion™ 60:1 Grease 120 lbs Inductor
1451-008	Lion™ 60:1 Grease 400 lbs Package, Lion™ 350, 60:1 Inductor Includes: 1450-011 Lion™ 60:1 Grease 400 lbs & Inductor
4450-006	Hoist w/ Inductor Plate 120 lb No Pump
4450-007	Hoist w/ Inductor Plate 400 lb No Pump
4450-005	Base plate for pump hoist & inductor



Grease Piston Pumps

Lion™ 350 60:1 Inductor

Lion™ 350 Inductor Package Description

Lion™ 350 60:1 grease pump is used with 120 and 400 lb drums. The air operated pump hoist lifts and lowers the pump, making drum changes easier, faster and safer. The pumps lower end is rigidly fixed to a follower plate with a single rubber lip. The weight of the pump, pump bracket and follower plate plus atmospheric pressure push the assembly against the grease eliminating channeling and air pockets, keeping grease free from contaminants, minimizing waste and aiding pump priming.

Lion™ Inductor Package Models Available

- ☐ **1451-009** Package, Lion™ 350, 60:1 Inductor Includes:
1450-012 Lion™ 350, 60:1 Grease 120 lbs
4450-003 Inductor, Gravity, Pump Lift & follower plate
- ☐ **1451-008** Package, Lion™ 350, 60:1 Inductor Includes:
1450-011 Lion™ 350, 60:1 Grease 400 lbs
4450-003 Inductor, Gravity, Pump Lift & follower plate

Lion™ Inductor Package Specifications

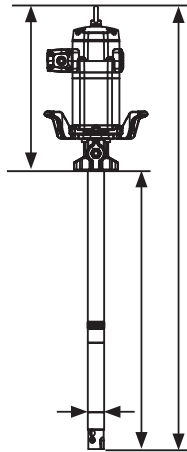
- 3.1. Inductor package will have a 3" (75 mm) diameter of the pneumatic cylinder
- 3.2. Inductor package will have an air inlet of 1/2" NPT(M)
- 3.3. Inductor package will have an equipment height of 58" (1,470 mm) minimum to 94.5" maximum (2,400 mm)
- 3.4. Inductor package will have a stroke of 36.6" (930 mm) of the pneumatic cylinder

Warranty

- 4.1. The Lion™ 350 60:1 Inductor will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ 450 25:1 Pump



Dimensions inches (MM)			
A	B	C	D
53.25" (1,357 mm)	19.75" (502 mm)	2" (50 mm)	33.5" (855 mm)

Grease up to NLGI-2 High Viscosity Oil

This medium pressure double ball pump can be used for both grease and oil in high volume medium pressure bulk transfer applications. The construction of the pump allows for dual use for grease systems that don't require high pressure or a high volume medium pressure oil system.

Applications

- Lube trucks bulk transfer
- Mining and construction; grease and oil transfer
- In-plant supply/maintenance

TECHNICAL DATA	
Pump ratio	25:1
Continuous duty flow rate	13 lb/min (6 kg/min)
Cycles per lb	6
Maximum free flow	35 lb/min (16 kg/min)
Operating air pressure	30 - 200 psi (1.38 - 14 bar)
Maximum fluid stall pressure	5,000 psi (350 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Air consumption ⁽¹⁾	47 CFM (1,340 NI/min)
Air inlet	1/2" NPT(F)
Fluid outlet	1/2" NPT(F)
Wetted materials	Cast Iron, Steel, Hard Chromed Steel, UHMWPE, and Buna-N™
Noise level ⁽²⁾	80 dB
Service bulletin	SB 1139

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

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

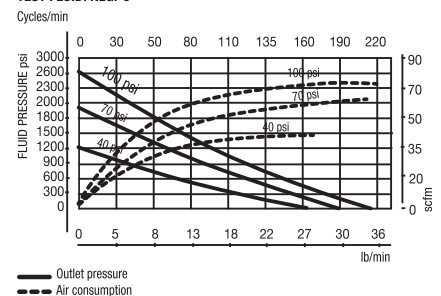
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1450-001	Lion™ 450 25:1 grease 400 lb drum pump

TEST FLUID: NLGI-0



Grease Piston Pumps

Lion™ 450 25:1 Pump

Lion™ 450 25:1 Pump Description

Lion™ 450 - 25:1. This medium pressure double ball pump can be used for both grease and oil in high volume medium pressure bulk transfer applications. The construction of the pump allows for dual use for grease systems that don't require high pressure or a high volume medium pressure oil system.

Lion™ 450 25:1 Pump Models Available

- ❑ **1450-001** Lion™ 450 25:1 grease 400 lb drum pump

Lion™ 450 25:1 Pump Specifications

- 3.1. Pump will have a 25:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1/2" NPT(F)
- 3.5. Pump will have a free flow of 35 lb/min (16 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 30 - 200 psi (1.38 - 14 bar)
- 3.7. Pump will have an air consumption pressure at 47 cfm (1.340 NI/min)
- 3.8. Pump will not exceed 6 cycles per pound
- 3.9. Pump will have a continuous duty flow rate of 13 lb/min (16 kg/min)
- 3.10. Pump will have a max fluid stall pressure of 5,000 psi (350 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)

Materials

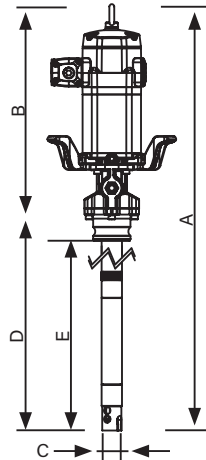
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, and Buna-N™

Warranty

- 5.1. The Lion™ 450 25:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ 450 40:1 Pump



Dimensions inches (MM)				
1450-002				
A	B	C	D	E
53.25" (1,357 mm)	19.75" (502 mm)	2" (50 mm)	33.5" (855 mm)	N/A
1450-003				
A	B	C	D	E
45.25" (1,152 mm)	19.75" (502 mm)	2" (50 mm)	25.5" (650 mm)	N/A
1450-004				
A	B	C	D	E
39" (992 mm)	19.75" (502 mm)	2" (50 mm)	19.25" (490 mm)	16.25" (410 mm)

Grease up to NLGI-2

Designed for medium volume applications that require higher flow and pressure delivery. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense, and higher flow applications (see pg. 53 & 54).

Applications

- HD truck grease dispensing needing simultaneous dispense points
- Truck fleets fifth wheel applications
- Lube trucks
- Railroad/mass transit
- In-plant medium volume usage
- Marine

TECHNICAL DATA	
Pump ratio	40:1
Continuous duty flow rate	8 lb/min (3.5 kg/min)
Cycles per lb	10
Maximum free flow	24 lb/min (11 kg/min)
Operating air pressure	30 - 200 psi (1.38 - 14 bar)
Maximum fluid stall pressure	8,000 psi (560 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Air consumption ⁽¹⁾	26.5 CFM (750 NI/min)
Air inlet	1/2" NPT(F)
Fluid outlet	1/2" NPT(F)
Wetted materials	Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™, and PTFE
Noise level ⁽²⁾	80 dB
Service Bulletin	SB 1131

(1) Air consumption at 5 bar air pressure, NLGI-0 grease at 20° C and 80 cpm.

(2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

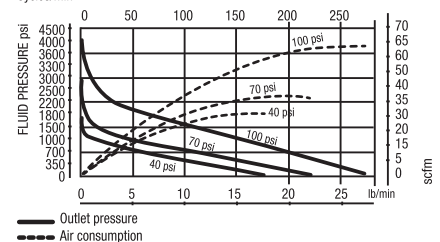
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1450-003	Lion™ 450 40:1 grease 120 lb drum pump
1450-002	Lion™ 450 40:1 grease 400 lb drum pump
1450-004	Lion™ 450 40:1 grease bulk tote pump

NLGI-2, 21 °C (70 °F) CAPACITY
Cycles/min



Grease Piston Pumps

Lion™ 450 40:1 Pump

Lion™ 450 40:1 Pump Description

Designed for medium volume applications that require higher flow and pressure delivery. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense, and higher flow applications.

Lion™ 450 40:1 Pump Models Available

- ☐ **1450-003** Lion™ 450 40:1 grease 120 lb drum pump
- ☐ **1450-002** Lion™ 450 40:1 grease 400 lb drum pump
- ☐ **1450-004** Lion™ 450 40:1 grease bulk tote pump

Lion™ 450 40:1 Pump Specifications

- 3.1. Pump will have a 40:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1/2" NPT(F)
- 3.5. Pump will have a free flow of 24 lb/min (11 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 30 - 200 psi (1.38- 14 bar)
- 3.7. Pump will have an air consumption pressure of 26.5 cfm (750 NI/min)
- 3.8. Pump will not exceed 10 cycles per pound
- 3.9. Pump will have a continuous duty flow rate of 8 lb/min (3.5 kg/min)
- 3.10. Pump will have a max fluid stall pressure of 8,000 psi (560 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)

Materials

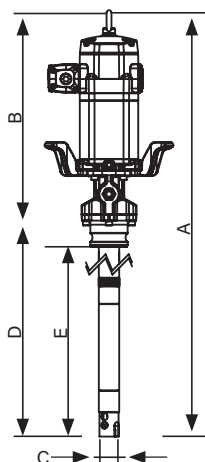
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™ and PTFE

Warranty

- 5.1. The Lion™ 450 40:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ 450 70:1 Pump



Dimensions inches (MM)				
1450-005				
A	B	C	D	E
53.25" (1,357 mm)	19.75" (502 mm)	2" (50 mm)	33.5" (855 mm)	N/A
1450-006				
A	B	C	D	E
45.25" (1,152 mm)	19.75" (502 mm)	2" (50 mm)	25.5" (650 mm)	N/A
1450-007				
A	B	C	D	E
39" (992 mm)	19.75" (502 mm)	2" (50 mm)	19.25" (490 mm)	16.25" (410 mm)

Grease up to NLGI-2

Designed for very cold environments and/or applications where only medium pressure air is available to power the pump which could limit the performance and application of greasing. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense or higher flow applications (see pg. 53 & 54).

Applications

- Lube trucks
- Railroad/mass transit
- In-plant long distance pumping
- Marine
- Oil fields/fracking

TECHNICAL DATA	
Pump ratio	70:1
Continuous duty flow rate	5 lb/min (2 kg/min)
Cycles per lb	17
Maximum free flow	16 lb/min (7.25 kg/min)
Operating air pressure ⁽³⁾	30 - 100 psi (1.38 - 7 bar)
Maximum fluid stall pressure	7,000 psi (490 bar)
Air motor effective diameter	4.5" (115 mm)
Air motor stroke	4" (100 mm)
Air consumption ⁽¹⁾	32.6 CFM (925 NI/min)
Air inlet	1/2" NPT(F)
Fluid outlet	1/2" NPT(F)
Wetted materials	Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™, and PTFE
Noise level ⁽²⁾	80 dB
Service Bulletin	SB 1140

(1) Air consumption at 5 bar air pressure, NLGI-0 grease at 20° C and 80 cpm.

(2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.

(3) Pump air limited to 100 psi (7 bar) due to connecting hose pressure limits.

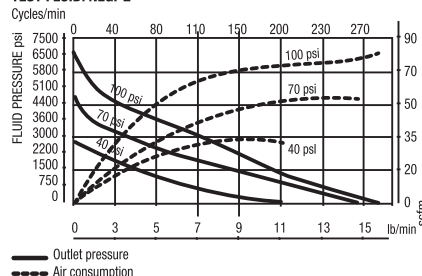
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1450-006	Lion™ 450 70:1 grease 120 lb drum pump
1450-005	Lion™ 450 70:1 grease 400 lb drum pump
1450-007	Lion™ 450 70:1 grease bulk tote pump

TEST FLUID: NLGI-2



Grease Piston Pumps

Lion™ 450 70:1 Pump

Lion™ 450 70:1 Pump Description

Designed for very cold environments and/or applications where only medium pressure air is available to power the pump which could limit the performance and application of greasing. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense or higher flow applications.

Lion™ 450 70:1 Pump Models Available

- ☐ **1450-006** Lion™ 450 70:1 grease 120 lb drum pump
- ☐ **1450-005** Lion™ 450 70:1 grease 400 lb drum pump
- ☐ **1450-007** Lion™ 450 70:1 grease bulk tote pump

Lion™ 450 70:1 Pump Specifications

- 3.1. Pump will have a 70:1 ratio
- 3.2. Pump will have a 4.5" (115 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1/2" NPT(F)
- 3.5. Pump will have a free flow of 16 lb/min (7.25 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 30 - 100 psi (1.38 - 7 bar)
- 3.7. Pump will have an air consumption pressure of 32.6 cfm (925 NI/min)
- 3.8. Pump will not exceed 17 cycles per pound
- 3.9. Pump will have a continuous duty flow rate of 5 lb/min (2 kg/min)
- 3.10. Pump will have a max fluid stall pressure of 7,000 psi (490 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)

Materials

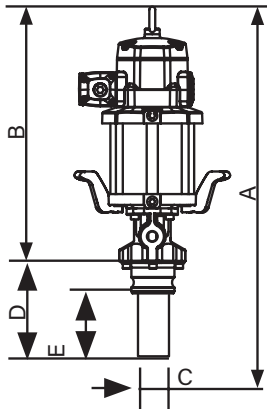
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™ and PTFE

Warranty

- 5.1. The Lion™ 450 70:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ 600 12:1 Pump



Dimensions inches (MM)				
A	B	C	D	E
29" (742 mm)	20" (516 mm)	2.75" (70 mm)	9" (226 mm)	5.75" (146 mm)

Grease up to NLGI-2

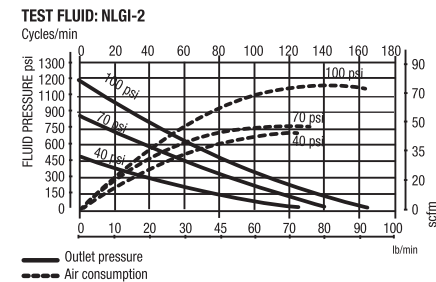
Medium pressure grease pump for very high volume applications. Bulk transfer of grease from large containers to drums or pails, lube trucks or other transfer applications at high delivery rates. Pump comes with a 3" cam-lock for easy installation into grease totes.

Applications

- Mining and construction
- Railroad/mass transit
- In-plant grease transfer

TECHNICAL DATA	
Pump ratio	12:1
Continuous duty flow rate	33 lb/min (15 kg/min)
Cycles per lb	2
Maximum free flow	88 lb/min (40 kg/min)
Operating air pressure	30 - 100 psi (1.38 - 7 bar)
Maximum fluid stall pressure	1,200 psi (84 bar)
Air motor effective diameter	6" (150 mm)
Air motor stroke	4" (100 mm)
Air consumption ⁽¹⁾	39 CFM (1.100 NI/min)
Air inlet	1/2" NPT(F)
Fluid outlet	1" NPT(F)
Wetted materials	Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™, PTFE, and Polyurethane
Noise level ⁽²⁾	80 dB
Service bulletin	SB 1142

MODELS AVAILABLE	DESCRIPTION
1450-010	Lion™ 600 12:1 grease bulk tote pump



(1) Air consumption at 5 bar air pressure, NLGI-0 grease at 20° C and 80 cpm.
(2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery.
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.
Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

Grease Piston Pumps

Lion™ 600 12:1 Pump

Lion™ 600 12:1 Pump Description

Medium pressure grease pump for very high volume applications. Bulk transfer of grease from large containers to drums or pails, lube trucks or other transfer applications at high delivery rates. Pump comes with a 3" cam-lock for easy installation into grease totes.

Lion™ 600 12:1 Pump Models Available

- ☐ **1450-010** Lion™ 600 12:1 grease bulk tote 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
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1" NPT(F)
- 3.5. Pump will have a free flow of 88 lb/min (40 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 30 - 100 psi (1.38 - 7 bar)
- 3.7. Pump will have an air consumption pressure of 39 cfm (1.100 NI/min)
- 3.8. Pump will have a continuous duty flow rate of 33 lb/min (15 kg/min)
- 3.9. Pump will have a max fluid stall pressure of 1,200 psi (84 bar)
- 3.10. Pump will have an air motor stroke of 4" (100 mm)
- 3.11. Pump will have cycles per lb of 2

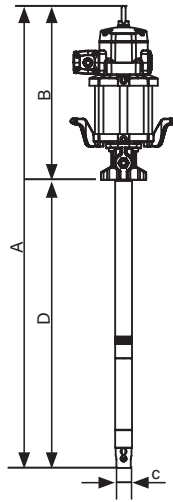
Materials

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

Warranty

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

Grease Piston Pumps Lion™ 600 80:1 Pump



Dimensions inches (MM)			
1450-008			
A	B	C	D
53.5" (1,371 mm)	20" (516 mm)	2" (50 mm)	33.5" (855 mm)
1450-009			
45.5" (1,166 mm)	20" (516 mm)	2" (50 mm)	25.5" (650 mm)

Grease up to NLGI-2

Designed for very cold environments and/or applications where only medium pressure air is available to power the pump which could limit the performance and application of greasing. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense, or higher flow applications (see pg. 53 & 54). Similar to the Lion™ 450 70:1 pump but operates at lower cycle rates for severe environments.

Applications

- Lube trucks
- Railroad/mass transit
- In-plant long distance pumping
- Marine
- Oil fields/fracking

TECHNICAL DATA	
Pump ratio	80:1
Continuous duty flow rate	6 lb/min (2.5 kg/min)
Cycles per lb	11
Maximum free flow	18 lb/min (8 kg/min)
Operating air pressure ⁽³⁾	30 - 100 psi (1.38 - 7 bar)
Maximum fluid stall pressure	8,000 psi (560 bar)
Air motor effective diameter	6" (150 mm)
Air motor stroke	4" (100 mm)
Air consumption ⁽¹⁾	39 CFM (1,100 NI/min)
Air inlet	1/2" NPT(F)
Fluid outlet	1/2" NPT(F)
Wetted materials	Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™, and PTFE
Noise level ⁽²⁾	80 dB
Service Bulletin	SB 1141

- (1) Air consumption at 5 bar air pressure, NLGI-0 grease at 20° C and 80 cpm.
 (2) Noise level measured at 1 m from the pump, 7 bar air pressure and free delivery
 (3) Pump air limited to 100 psi (7 bar) due to connecting hose pressure limits.

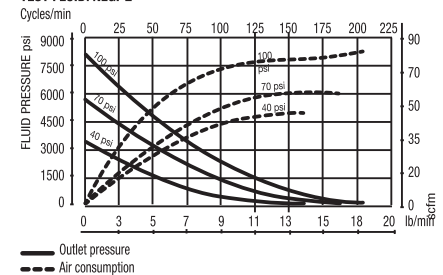
Warning! Do not use any Lion™ 450/600 series products with flammable fluids.

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.

MODELS AVAILABLE	DESCRIPTION
1450-009	Lion™ 600 80:1 grease 120 lb drum pump
1450-008	Lion™ 600 80:1 grease 400 lb drum pump

TEST FLUID: NLGI-2



Grease Piston Pumps

Lion™ 600 80:1 Pump

Lion™ 600 80:1 Pump Description

Designed for very cold environments and/or applications where only medium pressure air is available to power the pump which could limit the performance and application of greasing. This pump can be used with a follower plate system, combined with a gravity inductor system, or a double post RAM for simultaneous dispense, or higher flow applications. Similar to the Lion™ 450 70:1 pump but operates at lower cycle rates for severe environments

Lion™ 600 80:1 Pump Models Available

- ☐ **1450-009** Lion™ 600 80:1 grease 120 lb drum pump
- ☐ **1450-008** Lion™ 600 80:1 grease 400 lb drum pump

Lion™ 600 80:1 Pump Specifications

- 3.1. Pump will have a 80:1 ratio
- 3.2. Pump will have a 6" (150 mm) effective diameter displacement air motor
- 3.3. Pump will have an air inlet port of 1/2" NPT(F)
- 3.4. Pump will have a fluid outlet port of 1/2" NPT(F)
- 3.5. Pump will have a free flow of 18 lb/min (8 kg/min) based on 100 psi (7 bar)
- 3.6. Pump will have an operating air pressure of 30 - 100 psi (1.38 - 7 bar)
- 3.7. Pump will have an air consumption pressure of 39 cfm (1.100 NI/min)
- 3.8. Pump will not exceed 11 cycles per pound
- 3.9. Pump will have a continuous duty flow rate of 6 lb/min (2.5 kg/min)
- 3.10. Pump will have a max fluid stall pressure of 8,000 psi (560 bar)
- 3.11. Pump will have an air motor stroke of 4" (100 mm)

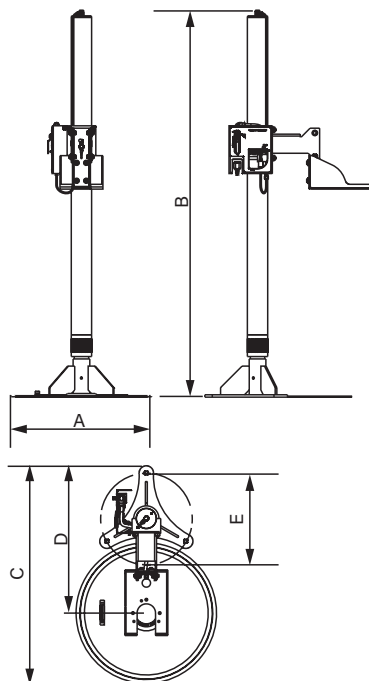
Materials

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

Warranty

- 5.1. The Lion™ 600 80:1 pump will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps Lion™ Inductor



Dimensions inches (MM)				
A	B Lowered/ Raised	C	D	E
23.25" (588 mm)	58" (1470 mm) 94.5" (2400 mm)	35.75" (910 mm)	24.03" (617 mm)	15" (381 mm)

Grease NLGI-2

Lion™ 450 and Lion™ 600 grease pumps are used with 400 lb drums in applications where higher volumes of grease are required. The air operated pump hoist lifts and lowers the pump, making drum changes easier, faster and safer. The pump's lower end is rigidly fixed to a follower plate with a single rubber lip. The weight of the pump, pump bracket and follower plate plus atmospheric pressure push the assembly against the grease eliminating channeling and air pockets, keeping grease free from contaminants, minimizing waste and aiding pump priming.

Applications

- High volume grease applications such as fifth wheel
- Medium/large volume vehicle maintenance shops
- Grease transfer
- In-plant grease supply

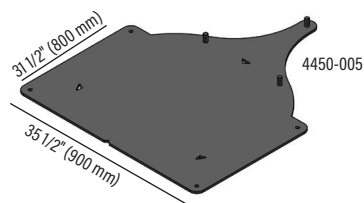
May require air supply fitting 3270-055

TECHNICAL DATA	
Diameter of the pneumatic cylinder	3" (75 mm)
Stroke of the pneumatic cylinder	36.6" (930 mm)
Minimum height of equipment	58" (1,470 mm)
Maximum height of equipment	94.5" (2,400 mm)
Air inlet	1/2" NPT(M)
Maximum air pressure	116 psi (8 bar)
Service Bulletin	SB 4228

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.



MODELS AVAILABLE	DESCRIPTION
1451-004	Package, Lion™ 450, 40:1 Inductor Includes: 1450-002 Lion™ 450, 40:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate
1451-005	Package, Lion™ 450, 70:1 Inductor Includes: 1450-005 Lion™ 450, 70:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate
1451-006	Package, Lion™ 600, 80:1 Inductor Includes: 1450-008 Lion™ 600, 80:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate
4450-005	Base plate for pump hoist & inductor
4450-003	Inductor, Gravity, Pump Lift & follower plate
833650	Fixed inductor plate for Lion™ 450 & 600 (kit only)

Grease Piston Pumps

Lion™ Inductor

Lion™ Inductor Description

Lion™ 450 and Lion™ 600 grease pumps are used with 400 lb drums in applications where higher volumes of grease are required. The air operated pump hoist lifts and lowers the pump, making drum changes easier, faster and safer. The pumps lower end is rigidly fixed to a follower plate with a single rubber lip. The weight of the pump, pump bracket and follower plate plus atmospheric pressure push the assembly against the grease eliminating channeling and air pockets, keeping grease free from contaminants, minimizing waste and aiding pump priming. Packages include specific pump, as noted, 4450-003 Inductor, Gravity Pump Lift & follower plate.

Lion™ Inductor Models Available

- ❑ **1451-004** Package, Lion™ 450, 40:1 Inductor Includes:
1450-002 Lion™ 450, 40:1 pump
4450-003 Inductor, Gravity, Pump Lift & follower plate
- ❑ **1451-005** Package, Lion™ 450, 70:1 Inductor Includes:
1450-005 Lion™ 450, 70:1 pump
4450-003 Inductor, Gravity, Pump Lift & follower plate
- ❑ **1451-006** Package, Lion™ 600, 80:1 Inductor Includes:
1450-008 Lion™ 600, 80:1 pump
4450-003 Inductor, Gravity, Pump Lift & follower plate

Lion™ Inductor Specifications

- 3.1. Inductor will have a 3" (75 mm) diameter of the pneumatic cylinder
- 3.2. Inductor will have an air inlet of 1/2" NPT(M)
- 3.3. Inductor will have a minimum of 58" (1,470 mm) and maximum of 94.5" (2,400 mm) height of equipment
- 3.4. Inductor will have a stroke of 36.6" (930 mm) of the pneumatic cylinder
- 3.5. Inductor will have a max air pressure of 116 psi (8 bar)

Warranty

- 4.1. The Lion™ Inductor will have a 1-year standard warranty on defects in materials and workmanship only.

Grease Piston Pumps

Lion™ Inductor, Double Post RAM

Grease NLGI-2 Grease NLGI-3

Lion™ 450 and Lion™ 600 grease pumps are used with 400 lb. drums in applications where high volumes of grease are required, environmental temperatures are low or higher viscosity greases are used. The air operated double post RAM inductor features controlled RAM pressure to assist in pump priming. When the double lip inductor plate is rigidly attached to the lower end of pump tube, the weight of the pump and lift pneumatic pressure of the RAM plus atmospheric pressure on the material forces and improves pump priming. The inductor plate also serves as protection against contaminants and eliminates material waste. for use with 400 lb. (185 kg) drums.

Applications

- High volume grease applications such as fifth wheel with multiple dispense points
- High volume large vehicle maintenance shops
- Industrial grease transfer to machines
- Mining
- Bulk grease transfer

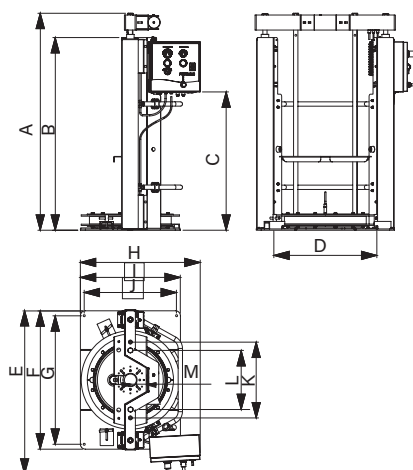
Unit also includes guide rods, drum retaining mechanism and a control box with the following features:

- On-off control of the pump
- Up-down control of the RAM (drum exchange)
- Two independent air pressure regulators, one for the pump and for the power RAM cylinders
- Pump independent air pressure gauge
- Empty drum shut-off safety feature
- Automatic vacuum release

When purchasing the double post inductor without a pump, contact Balcrank technical support for pump requirements.

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

Verify fluid compatibility with MSDS sheets. Contact Balcrank for pumping grease higher than NLGI-2 and specific system design performance technical data.



MODELS AVAILABLE	DESCRIPTION
1451-001	Package, Lion™ 450, 40:1 pump. Double Post Inductor. Includes: 1450-003 Lion™ 450, 40:1 pump 4450-004 Double Post Inductor 833650 Kit, Collar/Follower-Plate
1451-002	Package, Lion™ 450, 70:1 pump. Double Post Inductor. Includes: 1450-006 Lion™ 450, 70:1 pump 4450-004 Double Post Inductor 833650 Kit, Collar/Follower-Plate
1451-003	Package, Lion™ 600, 80:1 pump. Double Post Inductor. Includes: 1450-009 Lion™ 600, 80:1 pump 4450-004 Double Post Inductor 833650 Kit, Collar/Follower-Plate
1451-007*	Package, Lion™ 600, 12:1 pump. Double Post Inductor. Includes: 1450-010 Lion™ 600, 12:1 pump 4450-004 Double Post Inductor includes 3" Cam-lock for mounting pump to inductor plate
4450-004	Inductor, double post air operated

* When using this RAM with the 12:1, contact Balcrank customer service for additional needed components

Service Bulletin SB 4229

Dimensions inches (MM)		
A Lowered/ Raised	B	C
52" (1,320 mm) 88" (2,230 mm)	45.5" (1,156 mm)	32.66" (830 mm)
D	E	F
24.5" (74 mm)	38.75" (554 mm)	32.66" (830 mm)
G	H	I
30.33" (771 mm)	28.33" (720 mm)	23.66" (600 mm)
J	K	L
21.75" (554 mm)	18" (455 mm)	14" (355 mm)
M		
4" (104 mm)		

Grease Piston Pumps

Lion™ Inductor, Double Post RAM

Lion™ Inductor Description

Lion™ 450 and Lion™ 600 grease pumps are used with 400 Lb. drums in applications where high volumes of grease are required, environmental temperatures are low or higher viscosity greases are used. The air operated double post RAM inductor features controlled RAM pressure to assist in pump priming. When the double lip inductor plate is rigidly attached to the lower end of pump tube, the weight of the pump and lift pneumatic pressure of the RAM plus atmospheric pressure on the material forces and improves pump priming. The inductor plate also serves as protection against contaminants and eliminates material waste. For use with 400 lb. (185 kg) drums.

Unit also includes guide rods, drum retaining mechanism and a control box with the following features:

- On-off control of the pump
- Up-down control of the ram (drum exchange)
- Two independent air pressure regulators, one for the pump and for the power ram cylinders
- Pump independent air pressure gauge
- Empty drum shut-off safety feature
- Automatic vacuum release

Packages include specific pump, as noted, 4450-004 Double Post Inductor, collar & follower plate.

Lion™ Inductor Double Post RAM Models Available

- ❑ **1451-001** Package, Lion™ 450, 40:1 Inductor Includes:
1450-003 Lion™ 450, 40:1 pump
4450-004 Double Post Inductor, Collar & Follower plate
833650 Kit
- ❑ **1451-002** Package, Lion™ 450, 70:1 Inductor Includes:
1450-006 Lion™ 450, 70:1 pump
4450-004 Double Post Inductor, Collar & Follower plate
833650 Kit
- ❑ **1451-003** Package, Lion™ 450, 80:1 Inductor Includes:
1450-009 Lion™ 450, 80:1 pump
4450-004 Double Post Inductor, Collar & Follower plate
833650 Kit
- ❑ **1451-007*** Package, Lion™ 450, 12:1 Inductor Includes:
1450-010 Lion™ 450, 12:1 pump
4450-004 Double Post Inductor, 3" Camlock for mounting pump to inductor plate

Warranty

- 3.1. The Lion™ Inductor Double Post RAM will have a 1-year standard warranty on defects in materials and workmanship only.

CenterFlo AODD Transfer Pump Description

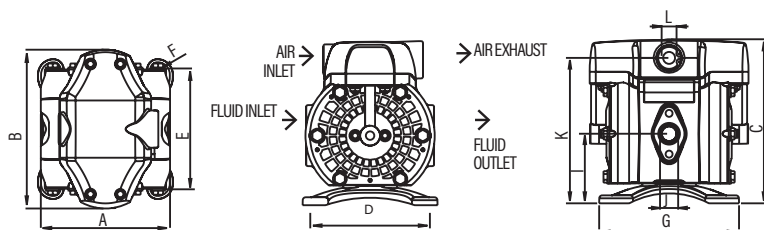
- 1.1. All CenterFlo AODD pumps will be a stall resistant design, manifold free, single molded pump body.
- 1.2. All CenterFlo AODD pumps will utilize a pressure differential in the air chambers to alternately create suction and positive fluid pressure in the fluid chambers, ball checks insure a positive flow of fluid.
- 1.3. All CenterFlo AODD pumps will be easily serviceable without disconnecting from distribution line.
- 1.4. All CenterFlo AODD pumps will be individually factory tested and verified for proper function.
- 1.5. All CenterFlo AODD pumps will be lube-free and ice-free.
- 1.6. All CenterFlo AODD pumps will have no rotating shafts or seals.
- 1.7. All CenterFlo AODD pumps will be able to run dry without damage to seals or wetted parts.
- 1.8. All CenterFlo AODD pumps will have on-demand operation.
- 1.9. All CenterFlo AODD pumps will have a fluid path through the center of the pump.
- 1.10. All CenterFlo AODD pumps will use Frictionless Pivoting Air Valve (FPV) technology.
- 1.11. All CenterFlo AODD pumps will have check valves with ball cages which minimize pulsation and provide improved performance under system pressure.
- 1.12. All CenterFlo AODD pumps will have no manifolds - ball checks will be internal and in parallel to the center of pump for improved performance and minimal pulsation
- 1.13. All CenterFlo AODD pumps will have a noise level below 80 db

Diaphragm Pumps

Product Selection Matrix

MAX. FREE FLOW	AIR INLET	FLUID IN / OUT	WETTED PARTS		RECOMMENDED FLUID TYPES	RECOMMENDED APPLICATIONS
			CHECK BALLS	DIAPHRAGM		
CF10 POLYPROPYLENE						
10 gal/min (38 l/min)	3/8" NPSM(F)	1/2" NPT(F)	PTFE (Teflon®)	Hytrel®	Anti-freeze (Glycol) and windshield wash solution	Fluid dispensing and transfer
CF10 POLYPROPYLENE/DEF						
10 gal/min (38 l/min)	3/8" NPSM(F)	1/2" BSPP(F)	PTFE (Teflon®)	Hytrel®	Diesel exhaust fluid	Fluid dispensing and transfer
CF15 POLYPROPYLENE						
15 gal/min (50 l/min)	3/8" NPSM(F)	1/2" NPT(F)	PTFE (Teflon®)	Hytrel®	Anti-freeze (Glycol) and windshield wash solution	Fluid dispensing, transfer, and evacuation
CF15 POLYPROPYLENE MIX						
15 gal/min (50 l/min)	2-3/8" NPSM(F)	1/2" NPT(F)	PTFE (Teflon®)	Hytrel®	Anti-freeze (Glycol) and windshield wash solution	Fluid dispensing, transfer, and evacuation
CF15 POLYPROPYLENE/DEF						
15 gal/min (50 l/min)	3/8" NPSM(F)	1/2" BSPP(F)	PTFE (Teflon®)	Hytrel®	Diesel exhaust fluid	Fluid dispensing and transfer
CF15 ALUMINUM						
15 gal/min (50 l/min)	3/8" NPSM(F)	1/2"NPT(F)	Buna-N™	Buna-N™	Light viscosity fluids synthetic, mineral oils, and oil	Fluid dispensing, transfer, and evacuation
CF30 POLYPROPYLENE						
28 gal/min (106 l/min)	3/8" NPSM(F)	1" NPT(F)	PTFE (Teflon®)	Hytrel®	Anti-freeze (Glycol) and windshield wash solution	Fluid dispensing, transfer, and evacuation
CF30 POLYPROPYLENE/DEF						
28 gal/min (106 l/min)	3/8" NPSM(F)	1" BSPP(F)	PTFE (Teflon®)	Hytrel®	Diesel exhaust fluid	Fluid dispensing and transfer
CF30 ALUMINUM						
28 gal/min (106 l/min)	3/8" NPSM(F)	1" NPT(F)	Hytrel®	Buna-N™	Light viscosity fluids synthetic, mineral oils, oil, and diesel	Fluid dispensing, transfer, and evacuation
CF50 POLYPROPYLENE/DEF						
53 gal/min (200 l/min)	3/8" NPSM(F)	1" ANSI FLANGE	Acetal	Hytrel®	Diesel exhaust fluid, Anti-freeze, (Glycol) and windshield wash solution	Fluid dispensing, transfer, and evacuation
CF50 ALUMINUM						
53 gal/min (200 l/min)	3/8" NPSM(F)	1" NPT(F)	Buna-N™	Buna-N™	Light viscosity fluids, synthetic, mineral oils, used oil, and diesel	Fluid dispensing, transfer, and evacuation
CF65 ALUMINUM						
65 gal/min (250 l/min)	1/2" NPSM(F)	1 1/2" NPT(F)	Acetal	Hytrel®	Light viscosity fluids, synthetic, mineral oils, used oil, windshield wash solution, and diesel	High volume transfer, bulk fill, de-watering, and evacuation





Dimensions inches (MM)										
A	B	C	D	E	F*	G	I	J	K	L
5.12" (130 mm)	6.3" (160 mm)	6.38" (162 mm)	4.13" (105 mm)	4.8" (122 mm)	0.31" (8 mm)	5.51" (140 mm)	2.76" (70 mm)	1/2" (F)	5.71" (146 mm)	3/8" (F)

* Diameter of the holes for fasteners in each of the four pump feet. Flange connection: 2 bolts - M 5 (1.61" between centers)

TECHNICAL DATA		
	1120-029A	1120-034A
Air inlet	3/8" NPSM(F)	3/8" NPSM(F)
Fluid inlet port	1/2" NPT(F)	1/2" BSPP(F)
Fluid outlet port	1/2" NPT(F)	1/2" BSPP(F)
Max. free flow	10 gal/min (38 l/min)	10 gal/min (38 l/min)
Air pressure range	22 to 102 psi (1.5 to 7 bar)	22 to 102 psi (1.5 to 7 bar)
Solids in suspension	1/8" (3 mm)	1/8" (3 mm)
Wetted Materials	PTFE (Teflon), Viton [®] , Polypropylene, Stainless Steel, Acetal, and Hytrel [®]	PTFE (Teflon), Viton [®] , polypropylene, stainless steel, acetal, and Hytrel [®]
Recommended Fluids	Anti-freeze (Glycol) and windshield wash solution	Anti-freeze (Glycol) and windshield wash solution
Recommended Applications	Fluid dispensing, transfer, and DEF	Fluid dispensing, transfer, and DEF
Service Bulletin	SB 1145	SB 1145

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-029A						
Polypropylene	NPT threaded ports	Polypropylene	Stainless Steel	Stainless Steel	PTFE	Hytrel [®]
1120-034A						
Polypropylene	BSPP threaded ports	Polypropylene	Stainless Steel	Stainless Steel	PTFE	Hytrel [®]

Anti-freeze (Glycol) Windshield wash solution DEF

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

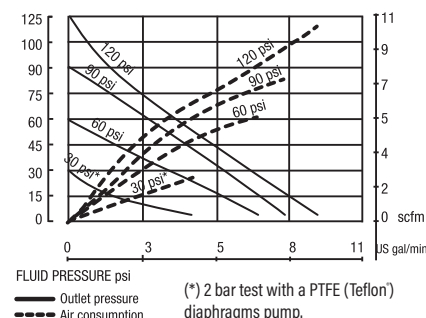
Typical applications are transferring and dispensing, up to 10 gal/min. They can be used as stand-alone pumps for transfer applications.

Markets Served

- Car and truck dealers
- Tire shops
- In-plant transfer
- Quick lubes

Pressure relief valve kit 3120-232 for this pump is recommended and not included.

MODELS AVAILABLE	DESCRIPTION
1120-029A	CF10 Polypropylene
1120-034A	CF10 Polypropylene / DEF
3120-232	Pressure Relief for Diaphragm 1/2" NPT



CF10 Poly AODD Pump-CenterFlo Description

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are transferring, dispensing, and evacuation, up to 10 gal/min. They can be used as stand-alone pumps for transfer applications.

CF10 Poly AODD Pump-CenterFlo Models Available

- ☐ **1120-029** CF10 Polypropylene
- ☐ **1120-034** CF10 Polypropylene / DEF

CF10 Poly AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 3/8" NPSM(F)
- 3.3. AODD Pump will have a fluid inlet port of 1/2" NPT(F) 1120-029A & 1/2" BSPP(F) DEF 1120-034
- 3.4. AODD Pump will have a fluid outlet port of 1/2" NPT(F) 1120-029A & 1/2" BSPP(F) DEF 1120-034
- 3.5. AODD Pump will have a free flow of 10 gal/min (38 l/min) 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 22 to 102 psi (1.5 to 7 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/8" (3 mm)

Materials

- 4.1. The wetted materials will consist of PTFE (Teflon®), Viton®, Polypropylene, Stainless Steel, Acetal, and Hytrel®

Warranty

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

AODD CenterFlo CF15 Mixing



Anti-freeze (Glycol) Windshield wash solution DEF

CenterFlo pumps with a dual inlet for 1:1 ratio mixing of fluids with similar viscosities, like windshield wash or anti-freeze with water. All dual inlet pumps have 2 x 2 - 3/8" NPT(F) inlet ports.

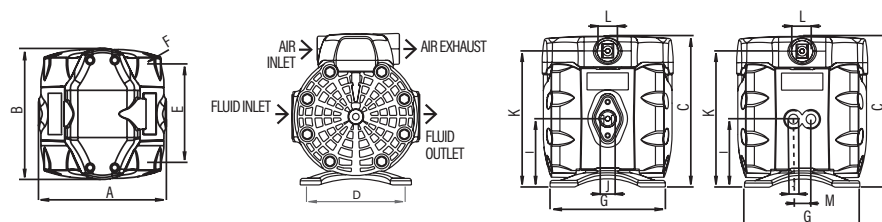
Fluids

- Anti-freeze (Glycol)
- Windshield wash solution

Markets Served

- Car and truck dealers
- Quick lubes

Pressure relief valve kit 3120-232 for this pump is recommended and not included.



Dimensions inches											
A	B	C	D	E	F*	G	I	J	K	L	M
6.14	6.30	7.28	4.13	4.80	0.31	5.54	3.27	0.5" (F)	6.54	3/8" (F)	0.94

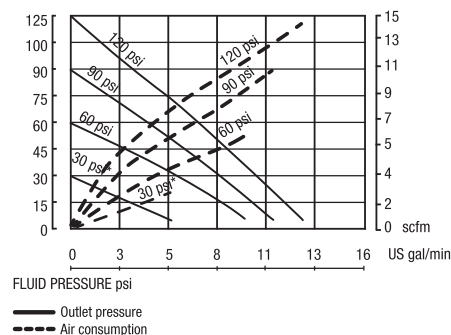
* Diameter of the holes for fasteners in each of the four pump feet.
Flange connection: 2 bolts - M 5 (1.61" between centers)

TECHNICAL DATA	
Air inlet	3/8" NPSM(F)
Fluid inlet port	2 - 3/8" NPT(F)
Fluid outlet port	1/2" NPT(F) & flange
Max. free flow	15 gal/min (50 l/min)
Air pressure range	22 to 102 psi (1.5 to 7 bar)
Solids in suspension	1/8" (3 mm)
Wetted Materials	PTFE (Teflon), Viton [®] , polypropylene, stainless steel, acetal and Hytrel [®]
Recommended Fluids	Anti-freeze (Glycol) and windshield wash solution
Recommended Applications	Dual inlet pumps for 1:1 proportion mixing of fluids with similar viscosity. NOTE: both fluids and their resulting solution must be compatible with the pump wetted materials
Service Bulletin	SB 1145

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

MODELS AVAILABLE	DESCRIPTION
1120-028	CF15 Polypropylene Mixing
3120-232	Pressure Relief for Diaphragm 1/2" NPT

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-028						
Polypropylene	NPT threaded ports	Polypropylene	Stainless Steel	Stainless Steel	PTFE	Hytrel [®]



(*) 2 bar test with a PTFE (Teflon) diaphragms pump.

AODD

CenterFlo CF15 Mixing

CF15 Poly/Mix AODD Pump-CenterFlo Description

CenterFlo pumps with a dual inlet for 1:1 ratio mixing of fluids with similar viscosities, like windshield wash or anti-freeze with water. All dual inlet pumps have 2 x 2 - 3/8" NPT(F) inlet ports.

CF15 Poly/Mix AODD Pump-CenterFlo Models Available

- ☐ **1120-028A** CF15 Polypropylene Mixing

CF15 Poly/Mix AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 3/8" NPSM(F)
- 3.3. AODD Pump will have two fluid inlet ports of 2 - 3/8" NPT(F)
- 3.4. AODD Pump will have a fluid outlet port of 1/2" NPT(F) & flange
- 3.5. AODD Pump will have a free flow of 15 gal/min (50 l/min) based on 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 22 to 102 psi (1.5 to 7 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/8" (3 mm)

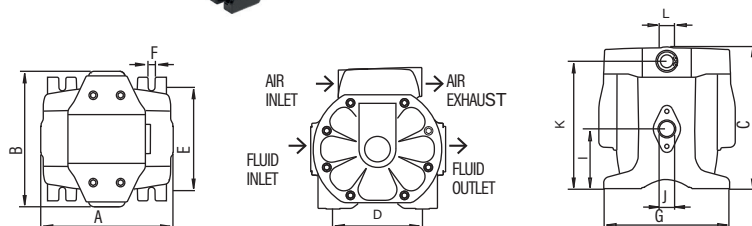
Materials

- 4.1. The wetted materials will consist of PTFE (Teflon®), Viton®, Polypropylene, Stainless Steel, Acetal, and Hytrel®

Warranty

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

AODD CenterFlo CF15



**Anti-freeze (Glycol)
Light viscosity fluids
Windshield wash
solution
Synthetic and
mineral oils
DEF
Used anti-freeze**

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are transferring and dispensing up to 15 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps in distribution systems that include hose reels.

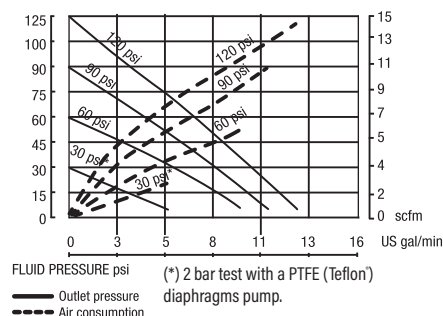
Markets Served

- Car and truck dealers
- Tire shops
- In-plant transfer
- Quick lubes

Pressure relief valve kit 3120-232 for this pump is recommended and not included.

MODELS AVAILABLE	DESCRIPTION
1120-023A	CF15 Polypropylene
1120-027	CF15 Aluminum
1120-025A	CF15 Polypropylene / DEF
3120-232	Pressure Relief for Diaphragm 1/2" NPT

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.



* Diameter of the holes for fasteners in each of the four pump feet.
Flange connection: 2 bolts - M 5 (1.61" between centers)

TECHNICAL DATA			
	1120-023A	1120-025A	1120-027
Air inlet	3/8" NPSM(F)	3/8" NPSM(F)	3/8" NPSM(F)
Fluid inlet port	1/2" NPT(F) 1120-023A	1/2" BSPP(F)	1/2" NPT(F)
Fluid outlet port	1/2" NPT(F)	1/2" BSPP(F)	1/2" NPT(F)
Max. Free Flow	15 gal/min (50 l/min)	15 gal/min (50 l/min)	15 gal/min (50 l/min)
Air pressure range	22 to 102 psi (1.5 to 7 bar)	22 to 102 psi (1.5 to 7 bar)	22 to 102 psi (1.5 to 7 bar)
Solids in suspension	1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)
Wetted Materials	PTFE (Teflon), Viton®, Polypropylene, Stainless Steel, and Hytrel®	PTFE (Teflon), Viton®, Polypropylene, Stainless Steel, and Hytrel®	Aluminum, PTFE, Viton®, Polypropylene, Buna-N™, and Stainless Steel
Recommended fluids	Anti-freeze (Glycol) and windshield wash solution	Diesel exhaust fluid	Light viscosity fluids, synthetic, mineral oils, anti-freeze, and oil
Recommended Applications	Fluid dispensing and transfer	Fluid dispensing and transfer	Fluid dispensing and transfer
Service Bulletin	SB 1145	SB 1145	SB 1145

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-023A						
Polypropylene	N = 1" NPT threaded ports	Polypropylene	Stainless Steel	Polypropylene	Hytrel®	Hytrel®
1120-027						
Aluminum	NPT threaded ports	Aluminum	Carbon Steel	Aluminum	Hytrel®	Hytrel®
1120-025A						
Polypropylene	BSPP threaded ports	Polypropylene	Stainless Steel	Polypropylene	Hytrel®	Hytrel®

CF15 AODD Pump-CenterFlo Description

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are transferring, dispensing, and evacuation up to 15 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps in distribution systems that include hose reels.

CF15 AODD Pump-CenterFlo Models Available

- ☐ **1120-023A** CF15 Polypropylene
- ☐ **1120-027** CF15 Aluminum
- ☐ **1120-025A** CF15 Polypropylene / DEF

CF15 AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 3/8" NPSM(F)
- 3.3. AODD Pump will have a fluid inlet port of 1/2" NPT(F) 1120-023A, 1120-027 & 1/2" BSPP(F) DEF 1120-025A
- 3.4. AODD Pump will have a fluid outlet port of 1/2" NPT(F) 1120-023A, 1120-027 & 1/2" BSPP(F) DEF 1120-025A
- 3.5. AODD Pump will have a free flow of 15 gal/min (50 l/min) based on 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 22 to 102 psi (1.5 to 7 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/8" (3 mm)

Materials

The wetted materials will consist of

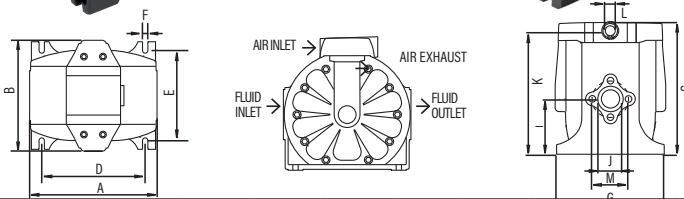
- 4.1. 1120-023A - 1120-025A PTFE (Teflon®), Viton®, Polypropylene, Stainless Steel, and Hytrel®
- 4.2. 1120-027 Aluminum, PTFE, Viton®, Polypropylene, Buna-N™, and Stainless Steel

Warranty

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

AODD CenterFlo CF30

Balcrank
Fluid Dispensing Systems



**Anti-freeze (Glycol)
Light viscosity fluids
Windshield wash
solution
Synthetic and
mineral oils
DEF
Used anti-freeze**

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are transferring and dispensing up to 28 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps that include hose reels.

Markets Served

- Car and truck dealers
- In-plant transfer
- Lube trucks
- Quick lubes

Pressure relief valve kit 3120-232 for this pump is recommended and not included.

MODELS AVAILABLE	DESCRIPTION
1120-026A	CF30 Polypropylene
1120-040	CF30 Aluminum
1120-031A	CF30 Polypropylene/DEF
3120-232	Pressure Relief for Diaphragm 1/2" NPT

Dimensions inches for aluminum pump (MM)											
A	B	C	D	E	F*	G	I	J	K	L	M
8.50" (216 mm)	7.44" (189 mm)	8.94" (227 mm)	6.89" (175 mm)	6.06" (154 mm)	0.35"	7.24" (184 mm)	3.72" (94 mm)	1" (F)	8.27" (210 mm)	0.37" (F)	2.44**
Dimensions inches for polypropylene pump (MM)											
8.50" (216 mm)	8.58" (218 mm)	9.06" (231 mm)	6.89" (175 mm)	6.06" (154 mm)	0.31"	7.24" (184 mm)	3.72" (94 mm)	1" (F)	8.33" (212 mm)	0.37" (F)	2.44**

*Diameter of the holes for fasteners in each of the four pump feet. **Flange connection: 4 bolts - M 10 (2.44" between centers).

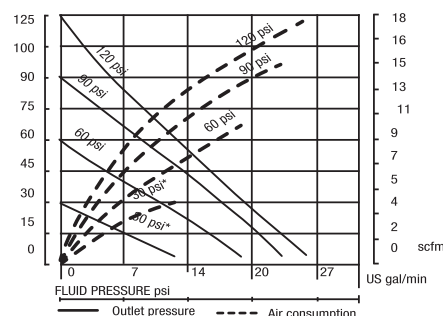
TECHNICAL DATA			
	1120-026A	1120-031A	1120-040
Air inlet	3/8" NPSM(F)	3/8" NPSM(F)	3/8" NPSM(F)
Fluid inlet port	1" NPT(F)	1" BSPP(F)	1" NPT(F)
Fluid outlet port	1" NPT(F)	1" BSPP(F)	1" NPT(F)
Max. free flow	28 gal/min (106 l/min)	28 gal/min (106 l/min)	28 gal/min (106 l/min)
Air pressure range	22 to 102 psi (1.5 to 7 bar)	22 to 102 psi (1.5 to 7 bar)	22 to 102 psi (1.5 to 7 bar)
Solids in suspension	3/16" (4 mm)	3/16" (4 mm)	3/16" (4 mm)
Wetted Materials	PTFE (Teflon [®]), Viton [®] , Polypropylene, Stainless Steel, and Hytrel [®]	PTFE (Teflon [®]), Viton [®] , Polypropylene, Stainless Steel, and Hytrel [®]	Aluminum, Acetal Teflon [®] , Buna-N [™] , Hytrel [®] , and Stainless Steel
Recommended fluids	Windshield wash solution	Diesel exhaust fluid	Light viscosity fluids, synthetic, mineral oils, and anti-freeze
Recommended applications	Fluid dispensing, transfer, and DEF	Fluid dispensing, transfer, and DEF	Fluid dispensing, transfer, and DEF
Service Bulletin	SB 1145	SB 1145	SB 1145

(*) 2 bar test with a PTFE (Teflon[®]) diaphragms pump.

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point.

Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-026A						
Polypropylene	NPT threaded ports	Polypropylene	Stainless Steel	Stainless Steel	PTFE	Hytrel [®]
1120-040						
Aluminum	NPT threaded ports	Aluminum	Carbon Steel	Hytrel [®]	Hytrel [®]	Hytrel [®]
1120-031A						
Polypropylene	BSPP threaded ports	Polypropylene	Stainless Steel	Stainless Steel	PTFE	Hytrel [®]



CF30 AODD Pump-CenterFlo Description

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are transferring, dispensing, and evacuation up to 28 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps that include hose reels.

CF30 AODD Pump-CenterFlo Models Available

- ☐ **1120-026A** CF30 Polypropylene
- ☐ **1120-040** CF30 Aluminum
- ☐ **1120-031A** CF30 Polypropylene / DEF

CF30 AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 3/8" NPSM(F)
- 3.3. AODD Pump will have a fluid inlet port of 1" NPT(F) for pumps 1120-026A and 1120-024
- 3.4. AODD Pump will have a fluid inlet port of 1" BSPP(F) for DEF pump 1120-031A
- 3.5. AODD Pump will have a fluid outlet port of 1" NPT(F) for pumps 1120-026A, 1120-024
- 3.6. AODD Pump will have a fluid outlet port of 1" BSPP(F) for DEF pump 1120-031A
- 3.7. AODD Pump will have a free flow of 28 gal/min (106 l/min) based on 100 psi (7 bar) air pressure
- 3.8. AODD Pump will have an operating air pressure of 22 to 102 psi (1.5 to 7 bar)
- 3.9. AODD Pump will have a maximum size of suspended solids of 3/16" (4 mm)

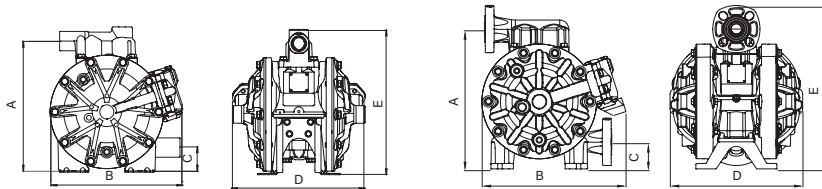
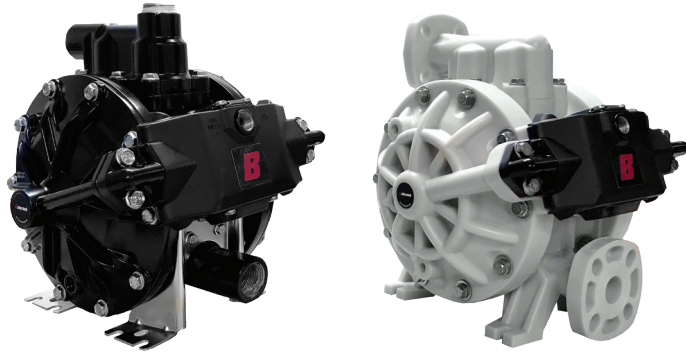
Materials

The wetted materials will consist of

- 4.1. 1120-026A and 1120-031A PTFE (Teflon), Viton, Polypropylene, Stainless Steel, and Hytrel
- 4.2. 1120-024 Aluminum, Acetal Teflon, Buna-N™, Stainless Steel, and Hytrel

Warranty

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



Dimensions inches (MM)				
A	B	C	D	E
11" (278 mm)	11" (280 mm)	2" (52 mm)	11" (281 mm)	12.13" (308 mm)

Dimensions inches (MM)				
A	B	C	D	E
12.25" (311 mm)	12.59" (320 mm)	2.33" (60 mm)	11.66" (295 mm)	14.33" (364 mm)

Used Oil Used Anti-freeze Synthetic and mineral based motor oil Windshield wash solution

CF50 is a high performance 1" AODD pump with many unique features. The new CF50 utilizes a flow through fluid design that is more air efficient than traditional AODD pumps. Capable of distributing up to 53 gal/min. This equates to higher performance, versatility along with easy serviceability.

- High performance; increased flow rate with minimal air consumption
- Dependability; non-icing air motor
- Versatile; inlet and outlet ports can be oriented to fit the installation/application
- Ease of service; diaphragms and air motor can be serviced with the pump installed without removal

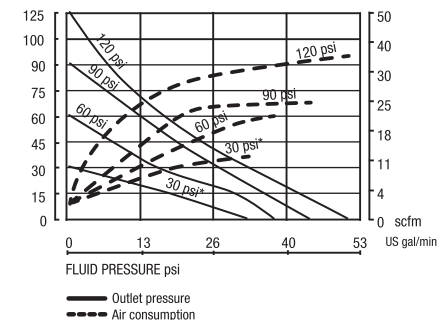
Markets served

- Car and truck dealers
- Mining and construction
- Fleets
- Railroad and mass transit
- In-plant transfer
- Lube trucks

Pressure relief valve kit 3120-231 for this pump is recommended and not included.

1120-038 includes flange kit for pump mounting.

MODELS AVAILABLE	DESCRIPTION
1120-037	CF50 Aluminum NPT
1120-038	CF50 Polypropylene Flange
3120-231	Pressure Relief for Diaphragm 1" NPT



TECHNICAL DATA		
	1120-037	1120-038
Air inlet	3/8" NPSM(F)	3/8" NPSM(F)
Fluid inlet port	1" NPT(F)	1" ANSI flange B16.5 150 lb
Fluid outlet port	1" NPT(F)	1" ANSI flange B16.5 150 lbs
Max. free flow	53 gal/min (200 l/min)	53 gal/min (200 l/min)
Air pressure range	22 to 115 psi (1,5 a 8 bar)	22 to 115 psi (1,5 a 8 bar)
Solids in suspension	1/8" (3.2 mm)	1/8" (3.2 mm)
Wetted Materials	Aluminum, Hytrel®, Acetal, Buna-N™, and Stainless Steel	PTFE (Teflon®), Polypropylene, Stainless Steel, Hytrel®, FKN, and ASTM
Recommended Fluids	Light viscosity fluids, synthetic, mineral oils, anti-freeze, and used oil	Windshield wash solution
Recommended Applications	Fluid dispensing, transfer, and evacuation	Fluid dispensing, transfer, and evacuation
Service Bulletin	SB 1147	SB 1147

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-037						
Aluminum	NPT threaded ports	Aluminum	Carbon Steel	Buna-N	Acetal	Buna-N
1120-038						
Polypropylene	NPT threaded lateral ports	Polypropylene	Stainless Steel	Santoprene	Santoprene	Santoprene

CF50 AODD Pump-CenterFlo Description

CF50 is a high performance 1" AODD pump with many unique features. Similar to all our CF series pumps, the new CF50 utilizes a flow through fluid design that is more air efficient than traditional AODD pumps. Capable of distributing up to 50 gal/min. This equates to higher performance, versatility along with easy serviceability.

- High performance; increased flow rate with minimal air consumption
- Dependability: non-icing air motor
- Versatile; inlet and outlet ports can be oriented to fit the installation/application
- Ease of service; diaphragms and air motor can be serviced with the pump installed without removal.

CF50 AODD Pump-CenterFlo Models Available

- ☐ **1120-037** CF50 Aluminum
- ☐ **1120-038** CF50 Polypropylene

CF50 AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 3/8" NPSM(F)
- 3.3. AODD Pump will have a fluid inlet port of 1" NPT(F) for 1120-037
- 3.4. AODD Pump will have a fluid outlet port of 1" NPT(F) for 1120-037
- 3.5. AODD Pump will have a fluid outlet port of of ANSI flange B16.5 150 lb for pumps 1120-038
- 3.6. AODD Pump will have a free flow of 53 gal/min (200 l/min) based on 100 psi (7 bar) air pressure
- 3.7. AODD Pump will have an operating air pressure of 22-102 psi (1.5-7 bar)
- 3.8. AODD Pump will have a maximum size of suspended solids of 1/8" (3.2 mm)
- 3.9 AODD Pump 1120-038 will have 1" NPT(F) flange kit included

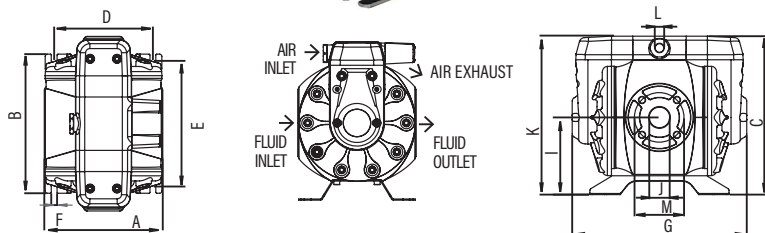
Materials

The wetted materials will consist of

- 4.1. PTFE (Teflon[®]), Polypropylene, Stainless Steel, Hytrel[®], FKM for 1120-037
- 4.2. Aluminum, Hytrel, Acetal, Buna-N[™], Stainless Steel for 1120-038

Warranty

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



Dimensions inches (MM)											
A	B	C	D	E	F*	G	I	J	K	L	M
10.39" (264 mm)	12.20" (310 mm)	13.90" (353 mm)	8.66" (220 mm)	11.02" (280 mm)	0.51"	15.35" (390 mm)	6.77" (172 mm)	1.5" (F)	12.87" (327 mm)	0.5" (F)	4.33**

* Diameter of the holes for fasteners in each of the four pump feet. ** ANSI B16.5 150 lb flange connection: 4 bolts - UNC 1/2" - 13 (3.87" between centers)

Anti-freeze (Glycol)
Light viscosity fluids
Windshield wash solution
Synthetic and mineral oil

CenterFlo pumps can handle a wide range of fluids used for vehicle service. Typical applications are high volume transferring, bulk fill, and evacuation up to 65 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps that include hose reels.

Markets Served

- Car and truck dealers
- Fleets
- Mining and construction
- Railroad and mass transit vehicles
- In-plant transfer
- Lube trucks

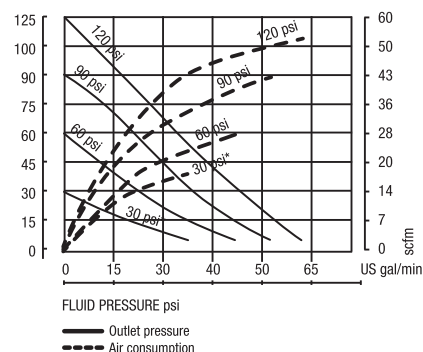
Pressure relief valve kit 3120-231 for this pump is recommended and not included.

TECHNICAL DATA	
Air inlet	1/2" NPSM(F)
Fluid inlet port	1 1/2" NPT(F) + ANSI flange B16.5 150 lb
Fluid outlet port	1 1/2" NPT(F) + ANSI flange B16.5 150 lb
Max. free flow	65 gal/min (250 l/min)
Air pressure range	22-102 psi (1.5-7 bar)
Solids in suspension	1/4" (6 mm)
Wetted Materials	Aluminum, Acetal, Buna-N™, and Stainless Steel
Recommended fluids	Anti-freeze (Glycol)
Recommended applications	Fluid dispensing, transfer, and evacuation
Service Bulletin	SB 1132

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

MODELS AVAILABLE	DESCRIPTION
1120-033	CF65 Diaphragm Pump
1120-039	CF65 Diaphragm Pump Buna-N™
3120-231	Pressure Relief for Diaphragm 1" NPT

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-033						
Aluminum	NPT threaded ports	Aluminum	Stainless Steel	Stainless Steel	Buna-N	Buna-N
1120-039						
Aluminum	NPT threaded ports	Aluminum	Stainless Steel	Stainless Steel	Buna-N	Buna-N



(*) 2 bar test with a Hytrel® diaphragms pump.

CF65 AODD Pump-CenterFlo Description

CenterFlo pumps can handle a wide range of fluids used for vehicle service.

Typical applications are high volume transferring, bulk fill, and evacuation up to 65 gal/min. They can be used as stand-alone pumps for transfer applications or as systems pumps that include hose reels.

CF65 AODD Pump-CenterFlo Models Available

- ☐ **1120-033** CF50 Aluminum
- ☐ **1120-039** CF50 Polypropylene

CF65 AODD Pump-CenterFlo Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 1/2" NPSM(F)
- 3.3. AODD Pump will have a fluid inlet port of 1 1/2" NPT(F) + ANSI flange B16.5 150 lb
- 3.4. AODD Pump will have a fluid outlet port of 1 1/2" NPT(F) + ANSI flange B16.5 150 lb
- 3.5. AODD Pump will have a free flow of 65 gal/min (250 l/mn) based on 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 22-102 psi (1.5-7 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/4" (6 mm)

Materials

- 4.1. The wetted materials will consist of Aluminum, Acetal, Buna-N™, Stainless Steel

Warranty

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

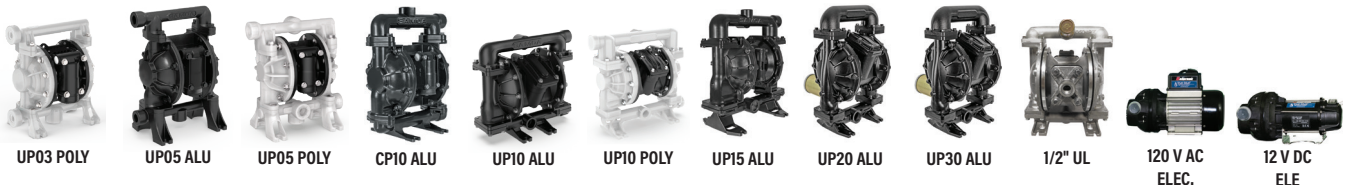


UP20 Pump Application

Diaphragm Pumps

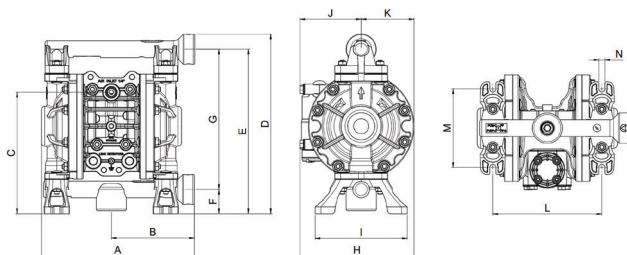
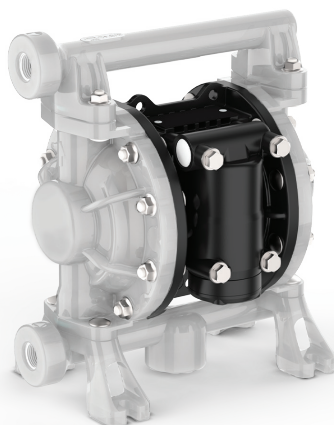
Product Selection Matrix

MAX. FREE FLOW	AIR INLET	FLUID IN / OUT	WETTED PARTS		RECOMMENDED FLUID TYPES	RECOMMENDED APPLICATIONS
			CHECK BALLS	DIAPHRAGM		
UP03 POLYPROPYLENE						
8.2 gal/min (3 l/min)	1/4" NPSM(F)	3/8" NPT(F)	PTFE	Santoprene	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP05 ALUMINUM						
13.5 gal/min (51 l/min)	1/4" NPSM(F)	1/2" NPT(F)	Hytrel [®]	Hytrel [®]	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP05 POLYPROPYLENE						
14.3 gal/min (54l/min)	1/4" NPSM(F)	1/2" NPT(F)	Santoprene	Santoprene	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
CP10 ALUMINUM						
14.3 gal/min (54l/min)	1/2" NPSM(F)	1" NPT(F)	Hytrel [®]	Hytrel [®]	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP10 ALUMINUM						
53 gal/min (200 l/min)	1/2" NPSM(F)	1" NPT(F)	Hytrel [®]	Hytrel [®]	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP10 POLYPROPYLENE						
53 gal/min (200 l/min)	1/2" NPSM(F)	1" NPT(F)	Santoprene	Santoprene	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP15 ALUMINUM						
35 gal/min (130 l/min)	3/8" NPSM(F)	1 1/2" NPT(F)	Hytrel [®]	Hytrel [®]	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP20 ALUMINUM						
170 gal/min (650 l/min)	3/4" NPSM(F)	2" NPT(F)	Hytrel [®]	Hytrel [®]	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
UP30 ALUMINUM						
265 gal/min (1000 l/min)	3/4" NPSM(F)	3" NPT(F)	Buna-N	Buna-N	Light viscosity fluids synthetic, mineral, oils, used oil, and anti-freeze	Fluid dispensing, transfer, and evacuation
CONVENTIONAL UL ALUMINUM						
45 gal/min (170l/min)	1/2" NPT(F)	1" NPT(F)	Nitrile	Nitrile	Light viscosity fluids synthetic, mineral, oils, used oil, and diesel	Fluid dispensing, transfer, and evacuation
ELECTRIC DIAPHRAGM						
8.5 gal/min (32.18l/min)	-	1" BSPP(M)	-	Stainless Steel, Viton [®] , PPE	Anti-freeze (Glycol), windshield wash solution and DEF	Fluid dispensing, transfer, and evacuation
9.5 gal/min (34.07l/min)	-	1" BSPP(M)	-	Stainless Steel, Viton [®] , PPE	Anti-freeze (Glycol), windshield wash solution and DEF	Fluid dispensing, transfer, and evacuation



AODD Pivot Series UP03

PIVOT
S E R I E S
UNIVERSAL DESIGN



Dimensions inches (MM)							
A	B	C	D	E	F	G	
7.95" (202 mm)	4.33" (110 mm)	6.34" (161 mm)	9.33" (237 mm)	8.54" (217 mm)	1.26" (32 mm)	7.28" (185 mm)	
H	I	J	K	L	M	N	O
5.95" (151 mm)	4.80" (122 mm)	3.19" (81 mm)	2.76" (70 mm)	5.71" (145 mm)	4.09" (104 mm)	6.18" (157 mm)	0.32" (8 mm)

TECHNICAL DATA	
Air inlet	1/4" NPT(F)
Fluid inlet port	3/8" NPT(F)
Fluid outlet port	3/8" NPT(F)
Max. free flow	8.2 US gal/min (31 l/min)
Air pressure range	20 to 100 psi (1.5 to 7 bar)
Solids in suspension	1/16" (1.6 mm)
Wetted Materials	Refer to materials table at the bottom of the page
Recommended Fluids	Anti-freeze (Glycol), windshield wash solution, lubricants, hydraulic oil
Recommended Applications	Small volume transfer, de-watting and fluid evacuation
Service Bulletin	SB 1208

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point.
Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-050 UP03B-NPS-PTA						
B= Polypropylene	N= NPT threaded ports	P= Poly	S= Stainless Steel	P= Poly	T= PTFE	A= Santoprene

Anti-freeze (Glycol) Windshield wash solution Synthetic and mineral oil

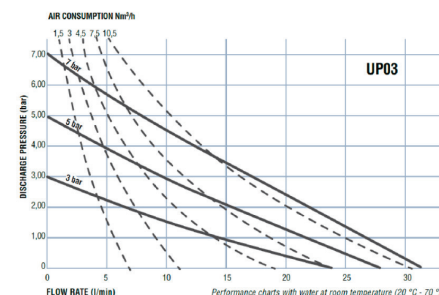
The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP03 Pivot Series pump transfers fluid up to 8 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Markets Served

- Car and Truck Dealerships
- Mining and Construction
- Fleets
- In Plant Transfer
- Lube Trucks
- Agriculture / Farm Implement

MODELS AVAILABLE	DESCRIPTION
1120-050	3/8" Diaphragm Pump Polypropylene UP03B-NPS-PTA



Pivot Series UP03 Pump Description

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP03 Pivot Series pump transfers fluid up to 8 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP03 Pump Models Available

- ❑ **1120-050** 3/8" Diaphragm Pump Polypropylene UP03B-NPS-PTA

Pivot Series UP03 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 1/4" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 3/8" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 3/8" NPT(F)
- 3.4. AODD Pump will have a free flow of 8.2 US gal/min (31 l/min) based on 100 psi (7 bar) air pressure
- 3.5. AODD Pump will have an operating air pressure of 20 to 100 psi (1.5 to 7 bar)
- 3.6. AODD Pump will have a maximum size of suspended solids of 1/16" (1.6 mm)

Materials

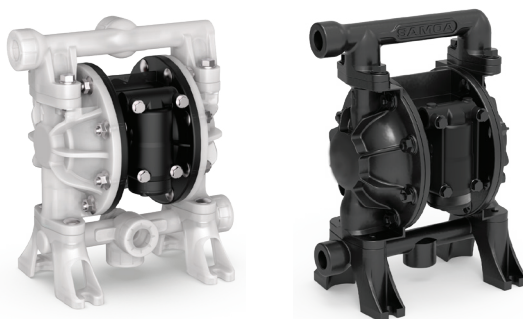
- 4.1. The wetted materials will consist of P= Poly, T= PTFE, A= Santoprene

Warranty

- 5.1. The Pivot Series UP03 Pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD Pivot Series UP05

PIVOT
S E R I E S
UNIVERSAL DESIGN



**Anti-freeze (Glycol)
Windshield wash
solution
Synthetic and
mineral oil**

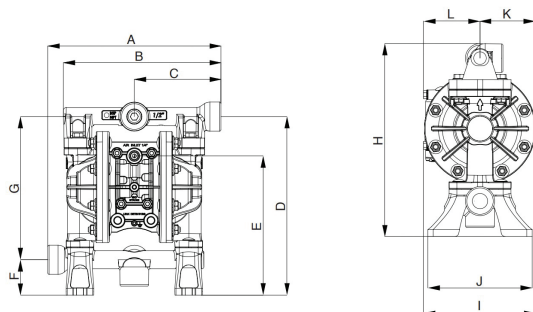
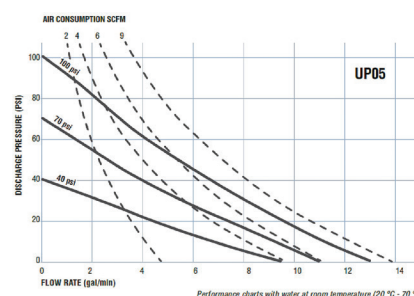
The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP05 Pivot Series pump transfers fluid up to 14 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Markets Served

- Car and Truck Dealerships
- Mining and Construction
- Fleets
- In Plant Transfer
- Lube Trucks
- Agriculture / Farm Implement

MODELS AVAILABLE	DESCRIPTION
1120-046	1/2" Diaphragm Pump Aluminium UP05A-NAC-AHC
1120-047	1/2" Diaphragm Pump Polypropylene UP05B-NPS-PMA
1120-052	1/2" Diaphragm Pump Conductive Polypropylene UP05B-BPS-PMA (DEF)



Dimensions inches (MM)						
A	B	C	D	E	F	G
9.84" (250 mm)	8.98" (228 mm)	4.92" (125 mm)	10.12" (257 mm)	7.87" (200 mm)	2.01" (51 mm)	8.11" (206 mm)

H	I	J	K	L	M	N	O
10.95" (278 mm)	6.34" (161 mm)	5.91" (150 mm)	3.15" (80 mm)	3.19" (81 mm)	4.92" (125 mm)	6.18" (157 mm)	0.39" (10 mm)

TECHNICAL DATA			
	1120-046	1120-047	1120-052
Air inlet	1/4" NPT(F)	1/4" NPT(F)	1/4" NPT(F)
Fluid inlet port	1/2" NPT(F)	1/2" NPT(F)	1/2" NPT(F)
Fluid outlet port	1/2" NPT(F)	1/2" NPT(F)	1/2" NPT(F)
Max. free flow	13.5 gal/min (51 l/min)	14.3 gal/min (54 l/min)	14.3 gal/min (54 l/min)
Air pressure range	20 to 100 psi (1.5 to 7 bar)	20 to 120 psi (1.5 to 8 bar)	20 to 100 psi (1.5 to 7 bar)
Solids in suspension	3/32" (2.5 mm)	3/32" (2.5 mm)	3/32" (2.5 mm)
Wetted Materials	Refer to materials table at the bottom of the page		
Recommended Fluids	Anti-freeze (Glycol), lubricants, used fluid and hydraulic oil	Anti-freeze (Glycol), windshield wash solution, lubricants, used fluid, and hydraulic oil	Anti-freeze (Glycol), windshield wash solution, lubricants, used fluid, and hydraulic oil
Recommended Applications	Medium volume transfer, de-watting and fluid evacuation		
Service Bulletin	SB 1211		

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-046 UP05A-NAC-AHC						
A= Aluminum	N= NPT threaded ports	A= Aluminum	C=Carbon Steel	A=Aluminum	H=Hytrell	C=Hytrell
1120-047 UP05B-NPS-PMA						
B= Polypropylene	N= NPT threaded ports	P= Polypropylene	S= Stainless Steel	P= Polypropylene	M= Santoprene	A= Santoprene
1120-052 UP05B-NPS-PMA						
B = Conductive Polypropylene	B = 1/2" BSP(F) threaded ports	P= Polypropylene	S= Stainless Steel	P= Polypropylene	Santoprene	Santoprene

Pivot Series UP05 Pump Description

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP05 Pivot Series pump transfers fluid up to 14 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP05 Pump Models Available

- ☐ **1120-046** 1/2" Diaphragm Pump Aluminium UP05A-NAC-AHC
- ☐ **1120-047** 1/2" Diaphragm Pump Polypropylene UP05B-NPS-PMA
- ☐ **1120-052** 1/2" Diaphragm Pump Conductive Polypropylene UP05B-BPS-PMA (DEF)

Pivot Series UP05 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 1/4" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 1/2" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 1/2" NPT(F)
- 3.4. AODD Pump 1120-046 will have a free flow of 13.5 gal/min (51 l/min) based on 100 psi (7 bar) air pressure
- 3.5. AODD Pump 1120-047 will have a free flow of 14.3 gal/min (54 l/min) based on 120 psi (8 bar) air pressure
- 3.6. AODD Pump 1120-052 will have a free flow of 14.3 gal/min (54 l/min) based on 120 psi (8 bar) air pressure
- 3.7. AODD Pump 1120-046 will have an operating air pressure of 20 to 100 psi (1.5 to 7 bar)
- 3.8. AODD Pump 1120-047 will have an operating air pressure of 20 to 120 psi (1.5 to 8 bar)
- 3.9. AODD Pump 1120-052 will have an operating air pressure of 20 to 100 psi (1.5 to 7 bar)
- 4.0. AODD Pump will have a maximum size of suspended solids of 3/32" (2.5 mm)

Materials

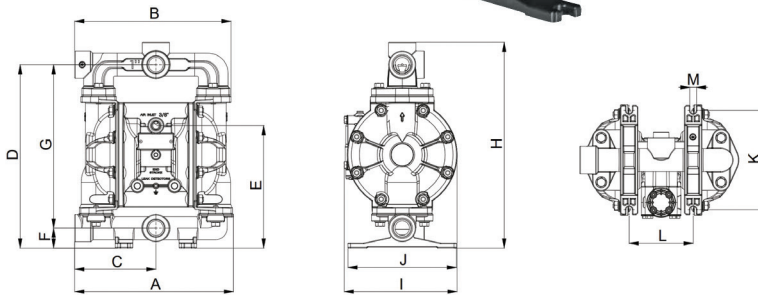
- 4.1. 1120-046 - The wetted materials will consist of A=Aluminum, H=Hytrel, C=Hytrel
- 4.2. 1120-047 - The wetted materials will consist of P= Polypropylene, M= Santoprene, A= Santoprene
- 4.3. 1120-052 - The wetted materials will consist of P= Polypropylene, Santoprene, Santoprene

Warranty

- 5.1. The Pivot Series UP05 Pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD
Pivot Series CP10

PIVOT
S E R I E S
UNIVERSAL DESIGN



Dimensions inches (MM)						
A	B	C	D	E	F	G
10.08 (256 MM)	9.92 (252 MM)	5.16 (131 MM)	11.61 (295 MM)	7.75 (197 MM)	1.26 (32 MM)	10.35 (263 MM)
H	I	J	K	L	M	
13.03 (331 MM)	7.16 (182 MM)	6.89 (175 MM)	6.25 (159 MM)	4.05 (103 MM)	.39 (10 MM)	

TECHNICAL DATA	
Air inlet	3/8" NPT(F)
Fluid inlet port	1" NPT(F)
Fluid outlet port	1" NPT(F)
Max. free flow	35 gal/min (130l/min)
Air pressure range	20-120 psi (1.5-8 bar)
Solids in suspension	1/8" (3.2 mm)
Wetted Materials	Refer to materials table at the bottom of the page
Recommended Fluids	Anti-freeze (Glycol), lubricants, used oil, used fluids, and hydraulic oil
Recommended Applications	Medium to large volume transfer, de-watting and fluid evacuation
Service Bulletin	SB 1210

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point.
Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-049 UP15A-NAC-HHC						
A=Aluminum	N= NPT threaded ports	A=Aluminum	C=Carbon Steel	H=Hytre ^l	H=Hytre ^l	C=Hytre ^l

Anti-freeze (Glycol)
Windshield wash
solution
Used oil
Synthetic and
mineral oil

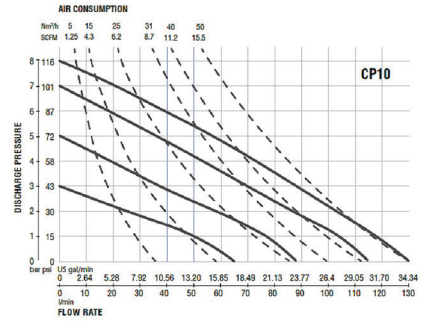
The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The CP10 Pivot Series pump has a Compact Design, reduced 3 3/4" from the traditional design and will transfer fluid up to 35 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Markets Served

- Car and Truck dealerships
- Mining and Construction
- Fleets
- Railroad and mass transit
- In plant transfer
- Lube Trucks
- Agriculture / Farm Implement

MODELS AVAILABLE	DESCRIPTION
1120-045	1" Diaphragm Pump Aluminum CP10A-NAC-HHC



Pivot Series CP10 Pump Description

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The CP10 Pivot Series pump has a Compact Design, reduced 3 ¾" from the traditional design and will transfer fluid up to 35 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series CP10 Pump Models Available

- **1120-045** 1" Diaphragm Pump Aluminum CP10A-NAC-HHC

Pivot Series CP10 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 3/8" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 1" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 1" NPT(F)
- 3.4. AODD Pump will have a free flow of 35 gal/min (130l/min) based on 120 psi (8 bar) air pressure
- 3.5. AODD Pump will have an operating air pressure of 20 to 120 psi (1.5 to 8 bar)
- 3.6. AODD Pump will have a maximum size of suspended solids of 1/8" (3.2 mm)

Materials

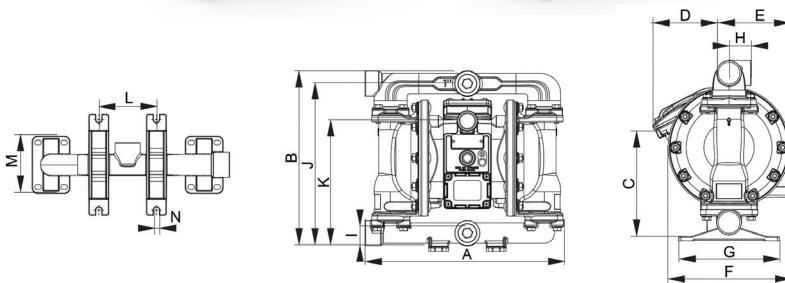
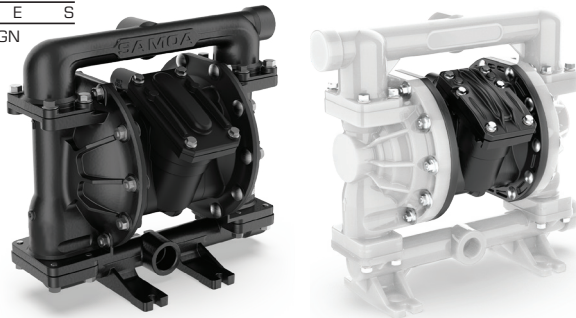
- 4.1. The wetted materials will consist of P= Poly, T= PTFE, A= Santoprene

Warranty

- 5.1. The Pivot Series CP10 Pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD Pivot Series UP10

PIVOT
S E R I E S
UNIVERSAL DESIGN



**Anti-freeze (Glycol)
Windshield wash
solution
Used oil
Synthetic and
mineral oil**

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP10 Pivot Series pump transfers fluid up to 53 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Markets Served

- Car and Truck dealerships
- Mining and Construction
- Fleets
- Railroad and mass transit
- In plant transfer
- Lube Trucks
- Agriculture / Farm Implement

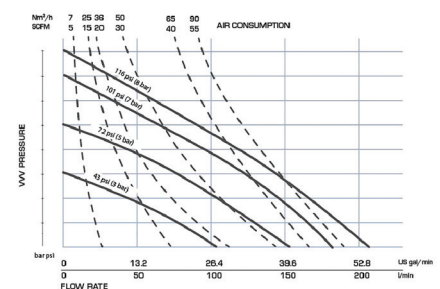
Dimensions inches (MM)						
A	B	C	D	E	F	G
13.70 (348 MM)	12.48 (317 MM)	8.43 (214 MM)	5.16 (131 MM)	4.17 (106 MM)	8.23 (209 MM)	6.97 (177 MM)
H	I	J	K	L	M	N
1.54 (39 MM)	1.26 (32 MM)	11.61 (295 MM)	9.33 (237 MM)	4.02 (102 MM)	6.26 (159 MM)	0.39 (10 MM)

TECHNICAL DATA		
	1120-044	1120-048
Air inlet	1/2" NPT(F)	1/2" NPT(F)
Fluid inlet port	1" NPT(F)	1" NPT(F)
Fluid outlet port	1" NPT(F)	1" NPT(F)
Max. free flow	53 gal/min (200 l/min)	53 gal/min (200 l/min)
Air pressure range	20-120 psi (1.5-8 bar)	20-120 psi (1.5-8 bar)
Solids in suspension	1/4" (6.4 mm)	1/4" (6.4 mm)
Wetted Materials	Refer to materials table at the bottom of the page	
Recommended Fluids	Anti-freeze (Glycol), lubricants, used oil, used fluids, and hydraulic oil	Anti-freeze (Glycol), windshield wash solution, lubricants, used oil, used fluids, and hydraulic oil
Recommended Applications	Medium to large volume transfer, de-watting and fluid evacuation	
Service Bulletin	SB 1156	

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point.
Contact Balcrank for additional information.

MODELS AVAILABLE	DESCRIPTION
1120-044	1" Diaphragm Pump Aluminum UPI0A-NAC-HHC
1120-048	1" Diaphragm Pump Polypropylene UPI0B-TPS-PMA

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-044 UPI0A-NAC-HHC						
A= Aluminum	N= NPT threaded ports	A= Aluminum	C=Carbon Steel	H=Hytrell	H=Hytrell	C=Hytrell
1120-048 UPI0B-TPS-PMA						
B= Polypropylene	N= NPT threaded ports-lateral	P= Polypropylene	S= Stainless Steel	P= Polypropylene	M= Santoprene	A= Santoprene



Pivot Series UP10 Pump Description

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP10 Pivot Series pump transfers fluid up to 53 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP10 Pump Models Available

- ☐ **1120-044** 1" Diaphragm Pump Aluminum UP10A-NAC-HHC
- ☐ **1120-048** 1" Diaphragm Pump Polypropylene UP10B-TPS-PMA

Pivot Series UP10 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 1/2" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 1" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 1" NPT(F)
- 3.4. AODD Pump will have a free flow of 53 gal/min (200 l/min) based on 120 psi (8 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 20 to 120 psi (1.5 to 8 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/4" (6.4 mm)

Materials

- 4.1. 1120-044 - The wetted materials will consist of H=Hytrel, C=Hytrel
- 4.1. 1120-048 - The wetted materials will consist of P= Polypropylene, M= Santoprene, A= Santoprene

Warranty

- 5.1. The Pivot Series UP10 Pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD Pivot Series UP15

PIVOT
S E R I E S
UNIVERSAL DESIGN



**Anti-freeze (Glycol)
Windshield wash
solution
Used oil
Synthetic and
mineral oil**

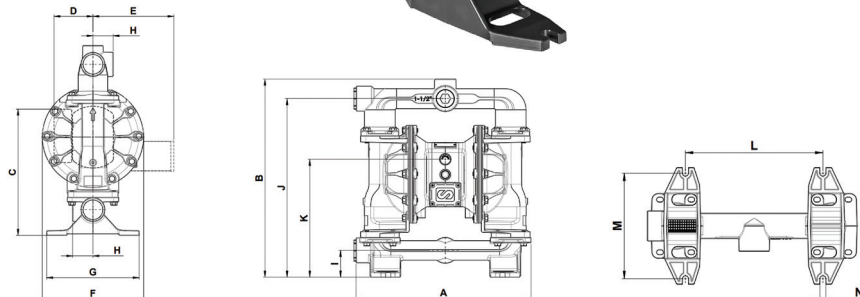
The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP15 Pivot Series pump transfers fluid up to 125 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Markets Served

- Car and Truck Dealerships
- Mining and Construction
- Fleets
- Railroad and Mass Transit
- In Plant Transfer
- Lube Trucks
- Agriculture / Farm Implement

Pumps AODD



Dimensions inches (MM)						
A	B	C	D	E	F	G
17.9 (455.5 MM)	20.4 (517.5 MM)	13.5 (344 MM)	4.2 (106 MM)	8.7 (220 MM)	10.9 (276 MM)	9.9 (252 MM)
H	I	J	K	L	M	N
2.2 (55 MM)	2.8 (70 MM)	18.4 (466.5 MM)	12.1 (308 MM)	11.8 (298.5 MM)	9 (228.6 MM)	0.5 (13 MM)

TECHNICAL DATA

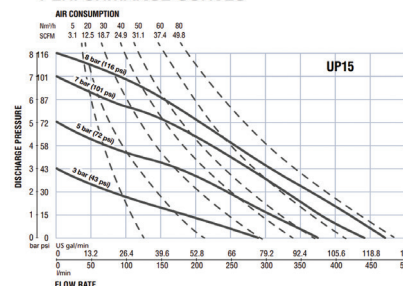
Air inlet	1/2" NPT(F)
Fluid inlet port	1-1/2" NPT(F)
Fluid outlet port	1-1/2" NPT(F)
Max. free flow	125 gal/min (470 l/min)
Air pressure range	22-120 psi (1.5-8 bar)
Solids in suspension	1/4" (6.4 mm)
Wetted Materials	Refer to materials table at the bottom of the page
Recommended Fluids	Anti-freeze (Glycol), lubricants, used oil, used fluids, and hydraulic oil
Recommended Applications	Very large volume transfer, de-watting and fluid evacuation
Service Bulletin	SB 1212

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-049 UP15A-NAC-HHC						
A=Aluminum	N = NPT threaded ports	A=Aluminum	C=Carbon Steel	H=Hytrell®	H=Hytrell®	C=Hytrell®

MODELS AVAILABLE	DESCRIPTION
1120-049	1-1/2" Diaphragm Pump Aluminum UP15A-NAC-HHC

PERFORMANCE CURVES



Pivot Series UP15 Pump Description

The Pivot Series combines a universal design with a unique frictionless Pivot-Shaft Air Valve to provide maximum performance and efficiency. This pump has been designed for simplified cleaning and maintenance and all Pivot Series pumps are designed for maximum fluid flow, and reduced air consumption.

The UP15 Pivot Series pump transfers fluid up to 125 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP15 Pump Models Available

- ❑ **1120-049** 1-1/2" Diaphragm Pump Aluminum UP15A-NAC-HHC

Pivot Series UP15 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 1/2" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 1-1/2" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 1-1/2" NPT(F)
- 3.4. AODD Pump will have a free flow of 125 gal/min (470 l/min) based on 120 psi (8 bar) air pressure
- 3.5. AODD Pump will have an operating air pressure of 22 to 120 psi (1.5 to 8 bar)
- 3.6. AODD Pump will have a maximum size of suspended solids of 1/4" (6.4 mm)

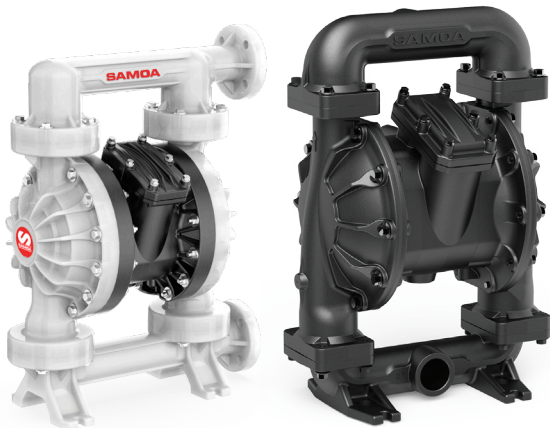
Materials

- 4.1. The wetted materials will consist of H=Hytrel®, C=Hytrel®

Warranty

- 5.1. The Pivot Series UP15 Pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD Pivot Series UP20

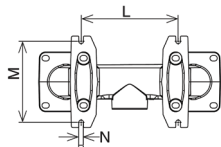
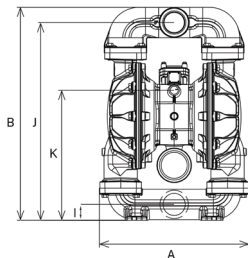
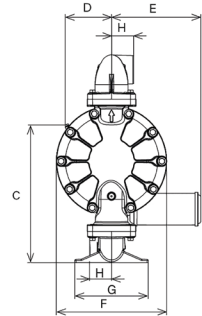


Anti-freeze (Glycol)
Windshield wash
solution
Used oil
Synthetic and
mineral oil

This Pivot Series pump is designed to handle a wide range of fluids in very large volume transfer and fluid evacuation applications.

The UP20 Pivot Series pump transfers fluid up to 170 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

- Markets Served
- Mining and construction
 - Railroad and mass transit vehicles
 - In-plant transfer
 - Agriculture/Farm implement
 - Lube trucks



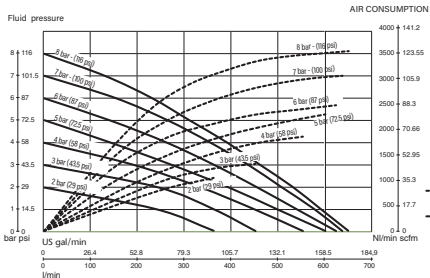
Dimensions inches (MM)						
A	B	C	D	E	F	G
18.3" (465 mm)	26.5" (673 mm)	18.9" (480 mm)	7.3" (185 mm)	13.9" (353 mm)	13.4" (340 mm)	10" (254 mm)
H	I	J	K	L	M	N
2.4" (61 mm)	1.9" (48 mm)	24.8" (630 mm)	17.3" (439 mm)	10.1" (307 mm)	9.1" (231 mm)	.06" (1.5 mm)

TECHNICAL DATA		
	1120-041	1120-051
Air inlet	3/4" NPT(F)	3/4" NPT(F)
Fluid inlet port	2" NPT(F)	2" Flanged
Fluid outlet port	2" NPT(F)	2" Flanged
Max. free flow	170 gal/min (650 l/min)	172 gal/min (650 l/min)
Air pressure range	20-120 psi (1.5-8 bar)	20-100 psi (1.5-7 bar)
Solids in suspension	1/4" (6.4 mm)	1/4" (6.4 mm)
Wetted Materials	Refer to materials table at the bottom of the page	Refer to materials table at the bottom of the page
Recommended Fluids	Anti-freeze (Glycol), lubricants, used oil, used fluids, and hydraulic oil	Anti-freeze (Glycol), lubricants, used oil, used fluids, and synthetic and mineral oil
Recommended Applications	Very large volume transfer, dewatering and fluid evacuation	Very large volume transfer, dewatering and fluid evacuation
Service Bulletin	SB 1206	

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-041 UP20A-NAC-HHC						
A=Aluminum	N=NPT threaded ports	A=Aluminum	C=Carbon Steel	H=Hytrell®	H=Hytrell®	C=Hytrell®
1120-051 UP20B-FPS-PHC						
B*=Conductive Polypropylene	F=Flanged Ports	P=Polypropylene	S=Stainless Steel	P=Polypropylene*	H=Hytrell®	C=Hytrell®

MODELS AVAILABLE	DESCRIPTION
1120-041	2" Diaphragm Pump Aluminum UP20A-NAC-HHC
1120-051	2" Diaphragm Pump Polypropylene UP20B-FPS-PHC



AODD

Pivot Series UP20

Pivot Series UP20 Pump-TraditionalFlo Description

This Pivot Series pump is designed to handle a wide range of fluids in very large volume transfer and fluid evacuation applications.

The UP20 Pivot Series pump transfers fluid up to 170 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP20 Pump Models Available

- ☐ **1120-041** 2" Diaphragm Pump Aluminum UP20A-NAC-HHC
- ☐ **1120-051** 2" Diaphragm Pump Polypropylene UP20B-FPS-PHC

Pivot Series UP20 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 3/4" NPT(F)
- 3.2. AODD Pump 1120-041 will have a fluid inlet port of 2" NPT(F)
- 3.3. AODD Pump 1120-041 will have a fluid outlet port of 2" NPT(F)
- 3.4. AODD Pump 1120-051 will have a fluid inlet port of 2" Flanged
- 3.5. AODD Pump 1120-051 will have a fluid outlet port of 2" Flanged
- 3.6. AODD Pump will have a free flow of 170-172 gal/min (605 l/mn) based on 120 psi (8 bar) air pressure
- 3.7. AODD Pump 1120-041 will have an operating air pressure of 20-120 psi (1.5-8 bar)
- 3.8. AODD Pump 1120-051 will have an operating air pressure of 20-100 psi (1.5-7 bar)
- 3.9. AODD Pump will have a maximum size of suspended solids of 1/4" (6.4 mm)

Materials

- 4.1. The 1120-041 wetted materials will consist of Aluminum, Hytrel®, Viton®
- 4.2. The 1120-051 wetted materials will consist of Polypropylene, Hytrel®

Warranty

- 5.1. The Pivot Series UP20 pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD Pivot Series UP30

PIVOT

S E R I E S

UNIVERSAL DESIGN

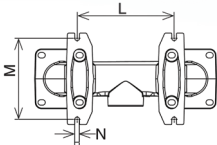
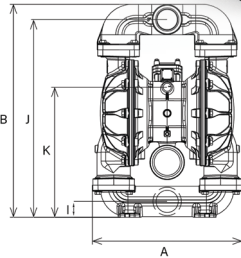
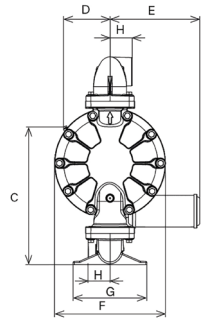


Anti-freeze (Glycol)
 Used oil
 Synthetic and
 mineral oil

This Pivot Series pump is designed to handle a wide range of fluids in very large volume transfer and fluid evacuation applications.

The UP30 Pivot Series pump transfers fluid up to 265 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

- Markets Served
- Mining and construction
 - Railroad and mass transit vehicles
 - In-plant transfer
 - Agriculture/Farm implement
 - Lube trucks



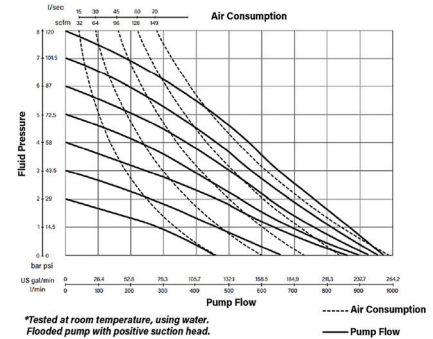
Dimensions inches (MM)						
A	B	C	D	E	F	G
22.6" (574mm)	32.3" (820 mm)	21.4" (544 mm)	7.2" (183 mm)	13.9" (353 mm)	17.2" (437 mm)	11.4" (290 mm)
H	I	J	K	L	M	N
3.4" (86 mm)	2.4" (61 mm)	30" (762 mm)	19.7" (500 mm)	12.1" (307 mm)	10.1" (256 mm)	.06" (1,5 mm)

TECHNICAL DATA	
Air inlet	3/4" NPT(F)
Fluid inlet port	3 " NPT(F)
Fluid outlet port	3 " NPT(F)
Max. free flow	265 gal/min (1000 l/min)
Air pressure range	20-120 psi (1.5-8 bar)
Solids in suspension	1/2" (12.7 mm)
Wetted Materials	Refer to materials table at the bottom of the page
Recommended Fluids	Anti-freeze (Glycol), lubricants, used oil, used fluids, and hydraulic oil
Recommended Applications	Very large volume transfer, de-watting and fluid evacuation
Service Bulletin	SB 1207

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-042 UP30A-NAC-NNG						
A=Aluminum	N=NPT threaded ports	A=Aluminum	C=Carbon Steel	N = Nitrile (Buna-N)	N = Nitrile (Buna-N)	G= Nitrile (Buna-N)
1120-053 UP30A-NAC-HHC						
A=Aluminum	N=NPT threaded ports	A=Aluminum	C=Carbon Steel	H=Hytrel®	H=Hytrel®	C=Hytrel®

MODELS AVAILABLE	DESCRIPTION
1120-042	3" Diaphragm Pump Aluminum UP30A-NAC-NNG
1120-054	3" Diaphragm Pump Aluminum UP30A-NAC-HHC



AODD

Pivot Series UP30

Pivot Series UP30 Pump-TraditionalFlo Description

This Pivot Series pump is designed to handle a wide range of fluids in very large volume transfer and fluid evacuation applications.

The UP30 Pivot Series pump transfers fluid up to 265 gal/min. Combining a conventional flow design with a special pivoting air valve for increased reliability. This pump can be used as a stand-alone pump for transfer or as a system pump for fluid distribution.

Pivot Series UP30 Pump Models Available

- ☐ **1120-042** 3" Diaphragm Pump Aluminum UP30A-NAC-NNG
- ☐ **1120-054** 3" Diaphragm Pump Aluminum UP30A-NAC-HHC

Pivot Series UP30 Pump Specifications

- 3.1. AODD Pump will have an air inlet port of 3/4" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 3 " NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 3 " NPT(F)
- 3.4. AODD Pump will have a free flow of 265 gal/min (1000 l/min) based on 120 psi (8 bar) air pressure
- 3.5. AODD Pump will have an operating air pressure of 20-120 psi (1.5-8 bar)
- 3.6. AODD Pump will have a maximum size of suspended solids of 1/2" (12.7 mm)

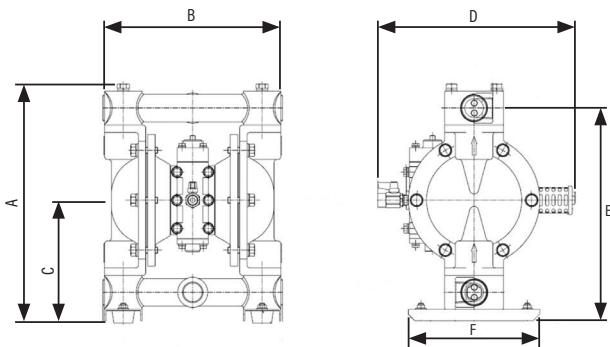
Materials

- 4.1. The 1120-042 wetted materials will consist of N = Nitrile (Buna-N), G= Nitrile (Buna-N)
- 4.2. The 1120-054 wetted materials will consist of H=Hytrel®, C=Hytrel®

Warranty

- 5.1. The Pivot Series UP30 pump will have a 1-year standard warranty on defects in materials and workmanship only.

AODD 1" UL Aluminum 46 gal/min



Dimensions inches (MM)					
A	B	C	D	E	F
15.04" (382 mm)	11.30" (260 mm)	7.72" (196 mm)	12.48" (317 mm)	15.04" (382 mm)	8.27" (210 mm)

Light viscosity fluids
Synthetic and mineral oils
Diesel fuel
Used fluids

This conventional pumps may be used as stand-alone pumps for transfer applications or as system pumps that include hose reels.

Model 1120-015Y is UL79 listed for pumping: Diesel Fuel, No. 4 Fuel Oils (or lighter), Motor Oil, Kerosene, and Water.

Markets Served

- Car and truck dealers
- Fleets
- Construction
- Mass transit vehicles
- In-plant transfer
- Lube trucks

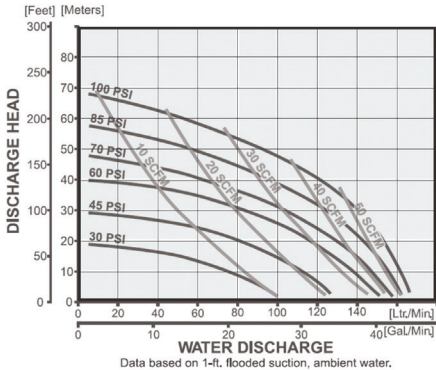
TECHNICAL DATA

Air inlet	3/8" NPT(F)
Fluid inlet port	1" NPT(F)
Fluid outlet port	1" NPT(F)
Max. free flow	46.2 gal/min (175 l/min)
Air pressure range	20 -100 psi (1.4-6.8 bar)
Wetted Materials	Refer to materials table at the bottom of the page
Recommended fluids	Light viscosity fluids synthetic, mineral oils, and anti-freeze
Recommended applications	Fluid dispensing, transfer, and evacuation.
Service Bulletin	SB ----

** Balcrank does not recommend pumping windshield wash or any other fluid below 100° flash point. Contact Balcrank for additional information.

AIR MOTOR	HOUSINGS			WETTED PARTS		
Central Body & Air Chambers	Fluid Ports / Location Multiport manifolds: central and lateral	Fluid Chambers & Manifolds	Hardware Bolts & Inserts	Valve Seats	Valve Balls	Diaphragms Type & Material
1120-015Y						
A = Aluminum	N = 1" NPT threaded ports	A = Aluminum	C = Carbon Steel	N = Nitrile	N = Nitrile	Z = PTFE

MODELS AVAILABLE	DESCRIPTION
1120-015Y	1" UL Aluminum AODD Pump



AODD

1" UL Aluminum 46 gal/min

1" UL Aluminum 46 gal/min Description

These conventional pumps may be used as stand-alone pumps for transfer applications or as system pumps that include hose reels.

Model 1120-015Y is UL79 listed for pumping: Diesel Fuel, No. 4 Fuel Oils (or lighter), Motor Oil, Kerosene, and Water.

1" UL Aluminum 46 gal/min Models Available

- ❑ **1120-015Y** 1" UL Aluminum AODD Pump

1" UL Aluminum 46 gal/min Specifications

- 3.1. AODD Pump will have an air inlet port of 3/8" NPT(F)
- 3.2. AODD Pump will have a fluid inlet port of 1" NPT(F)
- 3.3. AODD Pump will have a fluid outlet port of 1" NPT(F)
- 3.4. AODD Pump will have a free flow of 46.2 gal/min (175 l/min) based on 100 psi (6.8 bar) air pressure
- 3.5. AODD Pump will have an operating air pressure of 20 -100 psi (1.4-6.8 bar)

Materials

- 4.1. The wetted materials will consist of N = Nitrile, Z = PTFE

Warranty

- 5.1. The 1" UL Aluminum 46 gal/min will have a 1-year standard warranty on defects in materials and workmanship only.



Classic Hose Reel Stand Application

Hose Reels

Product Selection Matrix

MAX. HOSE	CONSTRUCTION	RECOMMENDED MARKETS	RECOMMENDED APPLICATIONS	MOUNTING
AXIS AIR & WATER				
50' x 3/8"	All steel spool and Pedestal	Small to medium dealerships Tire shops Transmission shops	Air/Water - low pressure	Ceiling, wall, cabinet
EVOLUTION				
50' x 1/2"	Composite spool Steel pedestal Dual ball-bearings	Grease Small to medium dealerships Tire shops Transmission shops	Air/Water - high pressure, hot water Oil - medium pressure Grease - high pressure Enclosed models	Ceiling, floor, wall, truck, tank
CLASSIC				
50' x 1/2" 30' x 3/4"	All steel spool and Pedestal	Grease Auto dealerships Tire shops Transmission Shops	Air/Water - low pressure Oil - medium pressure DEF - medium pressure Grease - high pressure Enclosed models	Ceiling, floor, wall, tank
PREMIUM				
60' x 1/2"	All steel spool and Pedestal Double arm Dual ball-bearings	Truck shops Municipalities Railroad Mining Lube trucks	Air/Water - low pressure Oil - medium pressure Grease - high pressure	Ceiling, floor, wall, truck, tank
EXTENDED VOLUME (EV)				
50' x 3/4" 65' x 3/8" 65' x 1/2"	All steel spool and Pedestal Heavy duty High capacity Double arm Dual ball-bearings	Truck shops Municipalities Railroad Mining Lube trucks	Air/Water - low pressure DEF - low pressure Diesel - low pressure Oil - medium pressure Grease - high pressure	Ceiling, floor, wall, truck, tank
EXTENDED VOLUME EXTRA (EVX)				
50' x 1" 75' x 3/4" 100' x 1/2"	All steel spool and Pedestal Heavy duty High capacity Double arm Dual ball-bearings	Truck shops Municipalities Railroad Mining Lube trucks	Air/Water - low pressure Diesel - low pressure Evacuation - low pressure Oil - medium pressure	Floor, truck, tank
EXTENDED VOLUME+ (EVX+)				
50' x 1 1/2"	All steel spool and Pedestal Heavy duty High capacity Double arm Dual ball-bearings Dual spring	Truck shops Municipalities Railroad Mining Lube trucks	Air/Water - low pressure Diesel - low pressure Oil - medium pressure	Floor, truck, tank



AXIS



EVOLUTION



CLASSIC



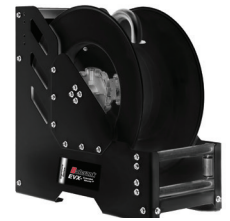
PREMIUM



EXTENDED
VOLUME (EV)



EXTENDED
VOLUME EXTRA (EVX)



EXTENDED
VOLUME + (EVX+)

Air & Water

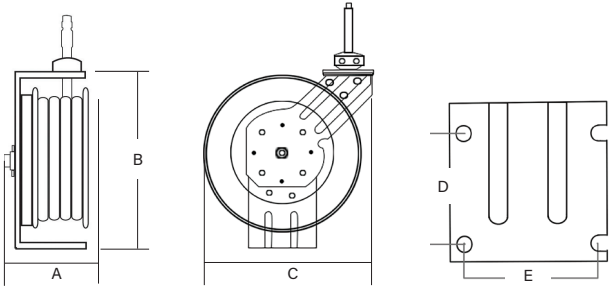


Steel “AXIS” Hose Reel: quality and value in a sturdy design

- Easy to install – light weight, compact design, will fit in small spaces.
- Five-position outlet arm – for use with ceiling, wall, cabinet mount.
- Proven design – excess spring torque assures reliable hose return
- Built to last – thick wall fluid swivel and hub; stamped steel rims, arms, and base
- Air hose, made from durable nylon exterior. Ball stop and 3’ connection hose included.
- Powder coat black finish – better corrosion resistance

MODELS AVAILABLE	DESCRIPTION
	Air & Water 300 psi (21 bar) for delivery
2130-002	50' x 3/8"

TECHNICAL DATA	
Low Pressure Reel	
Fluid inlet port	1/2" NPT(F)
Fluid outlet port	1/4" NPT(F)
Hose outlet thread	1/4" NPT(M)
Max pressure	300 psi (21 bar)
Wetted Parts	Approved for use with air & water



Dimensions inches (MM)				
A	B	C	D	E
6.7" (171 mm)	18.70" (475 mm)	18" (458 mm)	4" (102 mm)	5" (127 mm)

Hose Reels

Axis Air/Water Reel

Axis Air/Water Reel Description

Steel "AXIS" Hose Reel: quality and value in a sturdy design

- Easy to install – light weight, compact design, will fit in small spaces.
- Five-position outlet arm - for use with ceiling, wall, cabinet mount.
- Proven design - excess spring torque assures reliable hose return
- Built to last - thick wall fluid swivel and hub; stamped steel rims, arms, and base
- Air hose, made from durable nylon exterior. Ball stop and 3' connection hose included.
- Powder coat black finish – better corrosion resistance

Axis Air/Water Reel Specifications

2.1. **Need Specifications!!!**

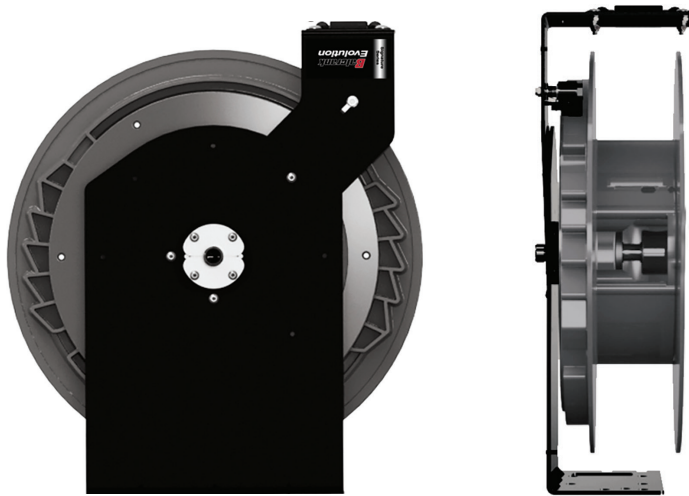
Materials

3.1. **Need Wetted Materials!!!**

Warranty

- 4.1. Axis Air/Water Reel will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).

Evolution series reels have a narrow and lightweight design; includes hose, hose stop and a 2.5' connecting hose.



MODELS AVAILABLE

DESCRIPTION

REPLACEMENT HOSE

Air & water low pressure 300 psi (21 bar) for delivery of air, water, windshield wash fluid, and anti-freeze

2140-021	Bare reel - up to 50' Hose	
2140-007	30' x 3/8" ID hose	8136-030
2140-008	50' x 3/8" ID hose	8136-050
2140-010	30' x 1/2" ID hose	8141-030
2140-011	50' x 1/2" ID hose	8141-050

Oil medium pressure 2,750 psi (190 bar) for delivery of lubricants

2140-002	Bare reel - up to 50' Hose	
2140-013	30' x 1/2" ID hose	8241-030
2140-014	50' x 1/2" ID hose	8241-050

Grease high pressure 5,000 psi (345 bar) for delivery of grease

2140-005	Bare reel - up to 50' Hose	
2140-019	30' x 3/8" ID hose	8332-030
2140-020	50' x 3/8" ID hose	8332-050

Water high pressure 2,900 psi (200 bar) for delivery of hot water up to 302° F (150° C)

2140-003	Bare reel - up to 50' Hose, hose inlet port 3/8" NPT (F)
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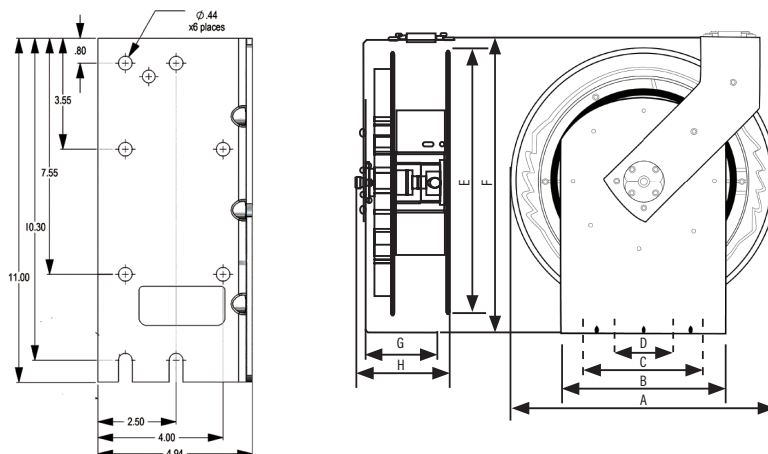
TECHNICAL DATA

Low & Medium Pressure Reels

Fluid inlet port	1/2" NPT(F) swivel
Fluid outlet port	1/2" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 3/8" ID Hoses
	1/2" NPT(M) for 1/2" ID Hoses
Wetted materials	Low Pressure - Brass, Acetal & Buna-N™
	Medium pressure - Steel (plated) & Buna-N™

High Pressure Reels

Fluid inlet port	3/8" NPT(F) swivel
Fluid outlet port	3/8" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 3/8" ID Hoses
Wetted materials	Nickel Plated Steel, Hardened steel and Polyurethane, Stainless Steel, Viton®
Service bulletin	SB 2025



Dimensions inches (MM)

A	B	C	D
18" (458 mm)	11" (280 mm)	9.5" (242 mm)	4" (102 mm)
E	F	G	H
18" (458 mm)	20" (508 mm)	5" (127 mm)	6.5" (166 mm)

Hose Reels Evolution

Evolution Hose Reel Description

Lightweight but extremely rugged: steel pedestal and arm and dual ball-bearings. The Evolution is a solid performer. The Evolution combines design, performance and reliability with the right features and benefits for today's customers.

All Evolution series reels have a narrow and lightweight design; includes hose, hose stop and a 2.5' connecting hose.

Evolution Hose Reel Specifications

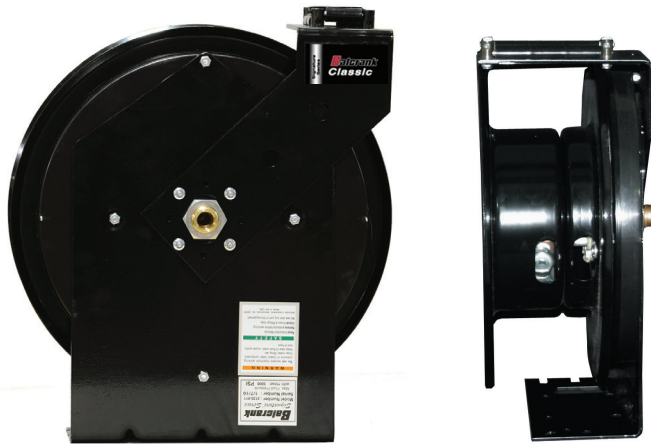
- 2.1. All Balcrank Evolution reels will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be pulled tangent from 360°.
- 2.2. All Balcrank Evolution reels will utilize a composite high strength resin 8-position radial latch assembly for superior corrosion resistance and latching performance at desired hose length.
- 2.3. All Balcrank Evolution hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface that is Nickel plated to provide excellent corrosion resistance and fluids compatibility.
- 2.4. All Balcrank Evolution reels will incorporate a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of spool.
- 2.5. All Balcrank Evolution reels will utilize a composite spool and power spring canister produced from high strength resins that is dent and corrosion resistant. The enclosed power spring lubricated canister is removable and provides safe and convenient maintenance of power spring.
- 2.6. All Balcrank Evolution reels will have a power spring made from fatigue resistant Steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.7. All Balcrank Evolution reels will have a unitized stamped heavy-gauge Steel pedestal that includes stiffening gussets for superior rigidity.
- 2.8. All Balcrank Evolution reels will have a 7-position guide arm for multiple installation options; ceiling, wall, floor, tank, cabinet.
- 2.9. All Balcrank Evolution reels will have dual spool mount sealed ball bearings that reduce power spring fatigue, wear, and facilitates smooth and balanced operation during delivery hose extension and retraction.
- 2.10. All Balcrank Evolution reel components will be individually powder coated prior to assembly for corrosion resistance. Standard color is matte black, outlet guide arm is available in other colors upon request; gloss black, silver, green, red, blue, yellow, and white.
- 2.11. All Balcrank Evolution reels will include hose, hose stop, and a 2.5' connecting hose.

Materials

- 3.1. The wetted materials will consist of Brass, Acetal & Buna-N™ for low pressure
- 3.2. The wetted materials will consist of Steel (plated) & Buna-N™ for medium pressure
- 3.3. The wetted materials will consist of Nickel plated Steel, hardened Steel, and Polyethylene for high pressure

Warranty

- 4.1. Evolution Hose reel will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).



**Air & Water
Anti-freeze
Windshield wash
Oil
Grease
Diesel**

The Classic Hose Reel has been the **standard of reliability for over a decade**. This solid, all steel hose reel is preferred for general duty, automotive dealerships, and service garages. Proven performance and reliable operation.

All Classic series reels include hose, hose stop and a 2.5' connecting hose.

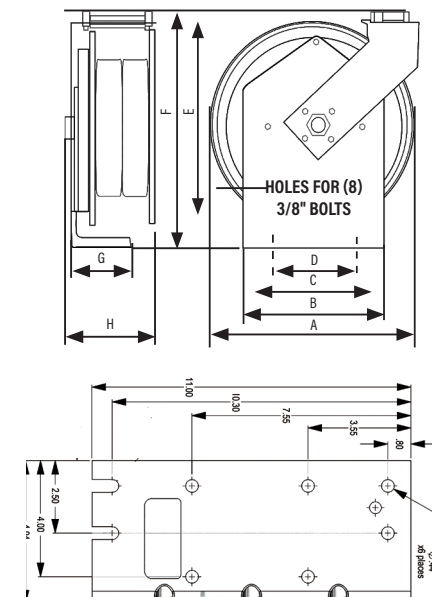
Standard color	Special color 2-week lead-time						Custom color 6-week lead time
Semi-gloss Black	Wt	Gr	Bl	Rd	Silver	Yl	
	-002	-003	-004	-005	-006	-007	based on specifications supplied by the customer

MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water, anti-freeze and windshield wash***		
2120-016	Bare reel - up to 30' Hose	-
2120-017	Bare reel - up to 50' Hose	-
2120-008	30' x 1/2" ID hose	8241-030
2120-014	30' x 3/8" ID hose	8136-030
2120-005	40' x 3/8" ID hose	8136-040
2120-015	50' x 3/8" ID hose	8136-050
2120-021*	30' x 3/8" ID hose. No arm	8141-030
2120-020	50' x 1/2" ID hose	8141-050
2120-025	30' x 3/8" ID hose-Nitrogen	8135-030
2120-026	50' x 3/8" ID hose-Nitrogen	8135-050
Oil medium pressure 2,750 psi (190 bar) for delivery of lubricants		
2120-016	Bare reel - up to 30' Hose	-
2120-017	Bare reel - up to 50' Hose	-
2120-011	30' x 1/2" ID hose	8241-030
2120-012	40' x 1/2" ID hose	8241-040
2120-013	50' x 1/2" ID hose	8241-050
2120-022*	16' x 1/2" ID hose. No arm	8241-016
Grease High pressure 5,000 psi (345 bar) for delivery of grease		
2120-018	Bare reel - up to 30' Hose	-
2120-019	Bare reel - up to 50' Hose	-
2120-003	30' x 3/8" ID hose	-
2120-004	40' x 3/8" ID hose	8331-040
2120-007	50' x 3/8" ID hose	8331-050
2120-001	30' x 1/4" ID hose	8321-030
2120-002	40' x 1/4" ID hose	8321-040
2120-006	50' x 1/4" ID hose	8321-050
DEF (Diesel Exhaust Fluid) Low pressure 150 psi (10 bar) for delivery of DEF		
2400-006	Bare reel, up to 3' x 3/4" ID BSPP (F)	-
2400-007	16' x 3/4" ID BSPP (M)	8569-016
2400-008	20' x 3/4" ID BSPP (M)	8569-020
2400-009	30' x 3/4" ID BSPP (M)	8569-030

* Classic reel less outlet arm for workbench mounting

Dimensions inches (MM)							
A	B	C	D	E	F	G	H
16" (407 mm)	11" (280 mm)	9.5" (242mm)	4" (102 mm)	16" (407 mm)	20" (508 mm)	5" (127 mm)	6-8" (153-204mm)

TECHNICAL DATA	
Low & Medium Pressure Reels	
Fluid inlet port	1/2" NPT(F) swivel
Fluid outlet port	1/2" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 3/8" ID Hoses
	1/2" NPT(M) for 1/2" ID Hoses
Wetted materials	Plated steel, Brass, bronze and Buna-N
High Pressure Reels	
Fluid inlet port	3/8" NPT(F) swivel
Fluid outlet port	3/8" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 1/4" ID Hoses
	1/4" NPT(M) for 3/8" ID Hoses
Wetted materials	Plated steel, hardened steel and Buna-N
Service Bulletin	SB 2002 SB 2002-A (No arm reels)



Hose Reels Classic

Classic Hose Reel Description

This solid, all Steel hose reel is preferred for general duty, automotive dealerships, and service garages. Proven performance and reliable operation; all Classic series reels includes hose, hose stop and a 2.5' connecting hose.

Classic Hose Reel Specifications:

- 2.1. All Balcrank Classic reel will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be tangent pulled from 360°
- 2.2. All Balcrank Classic reels will utilize a die cast Aluminum 8-position radial latch assembly for superior corrosion resistance and latching performance at desired hose length.
- 2.3. All Balcrank low and medium Classic hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface made from bronze and pressure specific Brass shaft that provides excellent corrosion resistance and fluid compatibility.
- 2.4. All Balcrank Classic reels will have a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of the spool.
- 2.5. All Balcrank Classic reels will utilize a stamped Steel power spring canister. The power spring lubricated canister is removable and provides safe and convenient maintenance of power spring.
- 2.6. All Balcrank Classic reels utilizes a power-spring made from fatigue resistant Steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.7. All Balcrank Classic reels will have a single unitized stamped heavy-gauge Steel pedestal that includes stiffening gussets for superior rigidity.
- 2.8. All Balcrank Classic reels will have a 7-position guide arm for multiple installation options; ceilings, walls, tanks, cabinets.
- 2.9. All Balcrank Classic reels components will be individually powder coated prior to assembly for corrosion resistance. Standard color is matte black, outlet hose guide is available in other colors upon request; gloss black, silver, green, red, blue, yellow, and white.
- 2.10. All Balcrank Classic reels will have a single-arm outlet design for easy hose replacement.
- 2.11. All Balcrank Classic reels will include hose, hose stop, and a 2.5' connecting hose.

Materials

- 3.1. The wetted materials will consist of plated Steel, Brass, bronze, and Buna-N™ for low and medium pressure
- 3.2. The wetted materials will consist of plated Steel, hardened Steel, and Buna-N™ for high pressure

Warranty

- 4.1. All Balcrank Classic will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).

Custom Reels

CUSTOM and SPECIAL color painted reels can add style to an installation and match OEM color schemes.

Custom colors are available on all Classic open and enclosed reels. Balcrank's STANDARD paint color for reels is semi-gloss black.

SPECIAL colors are available in: silver, green, red, blue, yellow, textured black, and white. All SPECIAL color reel orders require a minimum 2-week lead time.

CUSTOM colors are also available on open and enclosed Classic reels. Balcrank can match CUSTOM colors based on specifications supplied by the customer. All CUSTOM colors require a minimum 6-week lead time. Additional fees may apply.

Semi-Gloss	White	Green	Blue	Red	Silver	Yellow
-	-002	-003	-004	-005	-006	-007



**Air & Water
Anti-freeze
Windshield wash
Oil
Grease
DEF**

Premium Hose Reel for the toughest shop environments

Today's heavy-duty hose reel market demands an innovative use of components that provide long life, improved serviceability and superior structural design. Our Premium reel incorporates advanced design features that ensures long life in the toughest environments while reducing overall weight.

All Premium series reels have a narrow design; includes hose, hose stop and a 2.5' connecting hose.

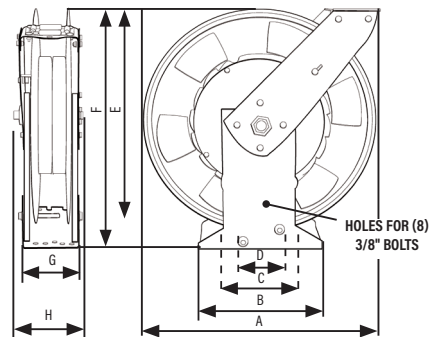
TECHNICAL DATA

Low & Medium Pressure Reels

Fluid inlet port	1/2" NPT(F) swivel
Fluid outlet port	1/2" NPT(F) swivel
Hose outlet thread	1/2" NPT(M) for 3/8" ID Hoses 1/2" NPT(M) for 1/2" ID Hoses
Wetted Materials	Low pressure - Brass, Acetal & Buna-N Med. pressure - Steel (plated) & Buna-N

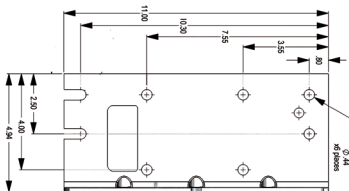
High Pressure Reels

Fluid inlet port	3/8" NPT(F) swivel
Fluid outlet port	3/8" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 1/4" ID Hoses 1/4" NPT(M) for 3/8" ID Hoses
Wetted Materials	Nickel plated steel, hardened steel and Polyethylene
Wetted Materials	Hardened steel and Polyurethane
Service Bulletin	SB 2027



MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water, anti-freeze and windshield wash**		
2111-048	Bare reel - up to 50' Hose	-
2111-049	Bare reel - up to 60' Hose	-
2111-031	30' x 3/8" ID hose	8136-030
2111-032	40' x 3/8" ID hose	8136-040
2111-033	50' x 3/8" ID hose	8136-050
2111-034	60' x 3/8" ID hose (50' + 10')*	8136-060
2111-035	40' x 1/2" ID hose	8141-040
2111-036	50' x 1/2" ID hose	8141-050
2111-037	60' x 1/2" ID hose (50' + 10')*	8141-060
Oil Medium Pressure 2,750 psi (190 bar) for delivery of lubricants		
2111-027	Bare reel - up to 50' Hose	-
2111-028	Bare reel - up to 60' Hose	-
2111-038	30' x 1/2" ID hose	8241-030
2111-039	40' x 1/2" ID hose	8241-040
2111-040	50' x 1/2" ID hose	8241-050
2111-041	60' x 1/2" ID hose (50' + 10')*	8241-060
Grease High-pressure 5,000 psi (345 bar) for delivery of grease		
2111-029	Bare reel - up to 50' Hose	-
2111-030	Bare reel - up to 60' Hose	-
2111-045	40' x 3/8" ID hose	8332-040
2111-046	50' x 3/8" ID hose	8332-050
2111-047	60' x 3/8" ID hose (50' + 10')*	8332-060
2111-042	40' x 1/4" ID hose	8323-040
2111-043	50' x 1/4" ID hose	8323-050
2111-044	60' x 1/4" ID hose (50' + 10')*	8323-060

* 50' on spool with 10' hanging



Dimensions inches (MM)			
A	B	C	D
20.5" (521 mm)	11" (280 mm)	9 1/2" (242 mm)	4" (102 mm)
E	F	G	H
20.25" (515 mm)	21.5" (547 mm)	5.5" (140 mm)	6.75" (172 mm)

Hose Reels

Premium

Premium Hose Reel Description

Today's heavy-duty hose reel market demands an innovative use of components that provide long life, improved serviceability and superior structural design.

Our Premium reel incorporates advanced design features that ensures long life in the toughest environments while reducing overall weight.

All Premium series reels have a narrow design; includes hose, hose stop and a 2.5' connecting hose.

Premium Hose Reel Specifications:

- 2.1. All Balcrank Premium reels will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be tangent pulled from 360°.
- 2.2. All Balcrank Premium reels will utilize a 10-position heavy-duty cast latch mechanism for secure hose lock performance at desired hose length.
- 2.3. All Balcrank Premium hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface that is Nickel plated to provide excellent corrosion resistance and fluids compatibility.
- 2.4. All Balcrank Premium reels will incorporate a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of spool.
- 2.5. All Balcrank Premium reels will have a heavy-gauge Steel twin pedestal and hose guide assembly for superior rigidity and increased strength for extreme-duty applications.
- 2.6. All Balcrank Premium reels will utilize a power-spring made from fatigue resistant Steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.7. All Balcrank Premium hose reels will have a 7-position twin guide arm for multiple installation options; ceiling, wall, floor, tank, cabinet, or mobile lube applications.
- 2.8. All Balcrank Premium reels will have dual spool mount sealed ball bearings that reduce power spring fatigue, wear, and facilitate a smooth and balanced operation during delivery hose extension and retraction.
- 2.9. All Balcrank Premium reels components will be individually powder coated prior to assembly for corrosion resistance.
- 2.10. All Balcrank Premium reels will include hose, hose stop, and a 2.5' connecting hose.

Materials

- 3.1. The wetted materials will consist of Brass, Acetal & Buna-N™ for low pressure
- 3.2. The wetted materials will consist of Steel (plated) & Buna-N™ for medium pressure
- 3.3. The wetted materials will consist of Nickel plated Steel, hardened Steel, and Polyethylene for high pressure

Warranty

- 4.1. All Balcrank Premium will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).

Hose Reels Extended Volume (EV)

**Air & Water
Anti-freeze
Oil
Grease
Diesel
DEF**

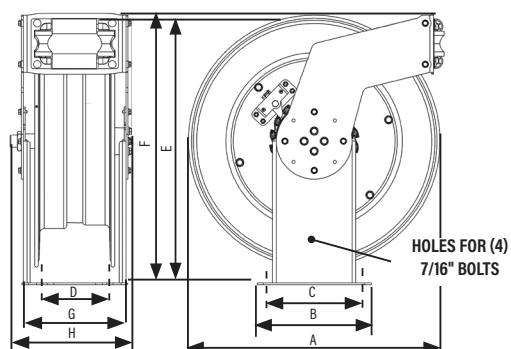
The Extended Volume, EV Series hose reels are designed for high volume heavy-duty applications where large hose diameters are required for increased flow. The EV reels will accommodate up to 50' of 3/4" ID hose or 65' of 1/2" ID hose. Perfect for heavy-duty fleet, construction, mining and industrial applications.

All EV series reels include hose, hose stop and a 2.5' connecting hose.

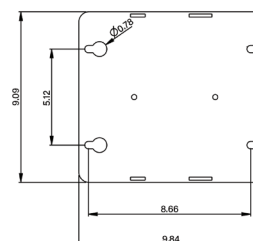


MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water and anti-freeze		
2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
2310-027	65' x 1/2" ID hose	8141-065
2310-028	50' x 3/4" ID hose	8161-050
Oil Medium Pressure for delivery of lubricants		
2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
2310-031	50' x 3/4" ID hose 1,950 psi (135 bar)	8264-050
2310-029	65' x 1/2" ID hose 2,750 psi (190 bar)	8250-065
Grease High pressure 5,000 psi (345 bar) for delivery of grease		
2310-048	Bare reel - up to 65' x 3/8"	-
2310-046	65' x 3/8" ID hose	8332-065
Diesel Low Pressure 50 psi (3 bar) for delivery of diesel		
2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
2310-032	50' x 3/4" ID hose	8466-050
Diesel Exhaust Fluid Low Pressure 150 psi (10 bar) for delivery of diesel exhaust fluid		
2400-010	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
2400-011	50' x 3/4" ID hose	8569-050

TECHNICAL DATA	
Diesel, Low & Medium Pressure Reels	
Fluid inlet port	3/4" NPT(F) swivel
Fluid outlet port	3/4" NPT(F) swivel
Hose outlet thread	1/2" NPT(M) for 1/2" ID Hoses
	3/4" NPT(M) for 3/4" ID Hoses
Wetted Materials	Nickel plated steel and Buna-N
Service Bulletin	SB 2028
Low Pressure DEF Reels	
Fluid inlet port	3/4" BSPP(F) swivel
Fluid outlet port	3/4" BSPP(F) swivel
Hose outlet thread	3/4" BSPP (M) for 3/4" ID Hoses
Wetted Materials	Stainless Steel, Polypropylene, & Viton®
Service Bulletin	SB 2028
High Pressure Reels	
Fluid inlet port	3/8" NPT(F) swivel
Fluid outlet port	3/8" NPT(F) swivel
Hose outlet thread	1/4" NPT(M) for 3/8" ID Hoses
Wetted Materials	Nickel Plated Steel, Hardened steel and Polyurethane
Service Bulletin	SB 2028



Dimensions inches (MM)			
A	B	C	D
22" (559 mm)	8.62" (219 mm)	5" (127 mm)	5.12" (131 mm)
E	F	G	H
22" (599 mm)	23.5" (597 mm)	9" (229 mm)	9.25" (235 mm)



Hose Reels

Extended Volume (EV)

EV Hose Reel Description

The Extended Volume, EV Series hose reels are designed for high volume heavy-duty applications where large hose diameters are required for increased flow. The EV reels will accommodate up to 50' of 3/4" ID hose or 65' of 1/2" ID hose. Perfect for heavy-duty fleet, construction, mining and industrial applications.

All EV series reels include hose, hose stop and a 2.5' connecting hose.

EV Hose Reel Specifications:

- 2.1. All Balcrank EV reels will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be tangent pulled from 360°
- 2.2. All Balcrank EV reels will have a heavy-gauge Steel twin pedestal and hose guide assembly for superior rigidity and increased strength for extreme-duty applications.
- 2.3. All Balcrank EV reels will have capacity to handle a maximum of 100 ft. of hose, depending on fluid application and hose diameter.
- 2.4. All Balcrank EV reels will include hose, hose stop, and a 2.5' connecting hose.
- 2.5. All Balcrank EV reels will utilize a power-spring made from fatigue resistant Steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.6. All Balcrank EV hose reels will have a 7-position twin guide arm for multiple installation options; ceiling, wall, floor, tank, cabinet, or mobile lube applications.
- 2.7. All Balcrank EV hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface that is Nickel plated to provide excellent corrosion resistance and fluids compatibility.
- 2.8. All Balcrank EV reels will utilize a 10-position heavy-duty cast latch mechanism for secure hose lock performance at desired hose length.
- 2.9. All Balcrank EV reels will have a dual spool mount sealed ball bearings that reduce power spring fatigue, wear, and facilitates a smooth, and balanced operation during delivery hose extension and retraction.
- 2.10. All Balcrank EV reel components will be individually powder coated prior to assembly for corrosion resistance.
- 2.11. All Balcrank EV reels will incorporate a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of spool.

Materials

- 3.1. The wetted materials will consist of Nickel plated steel and Buna-N™ for diesel, low and medium pressure reels
- 3.2. The wetted materials will consist of Stainless Steel, Polypropylene, & Viton® on low pressure DEF reels
- 3.3. The wetted materials will consist of Nickel Plated Steel, Hardened steel and Polyurethane high pressure reels

Warranty

- 4.1. All Balcrank EV reels will have a 1-year standard warranty defects in materials and workmanship .
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).
- 4.3. Excludes all DEF packages & components, these carry a 1-year standard warranty.

Hose Reels Extended Volume Extra (EVX)



Air & Water Anti-freeze Oil Diesel Evacuation

The Extended Volume, EVX Series hose reels are designed for high volume heavy-duty applications where large hose diameters are required for increased flow. The EVX reels will accommodate up to 50' of 1" ID hose or 100' of 1/2" ID hose. Perfect for heavy-duty fleet, construction, mining and industrial applications.

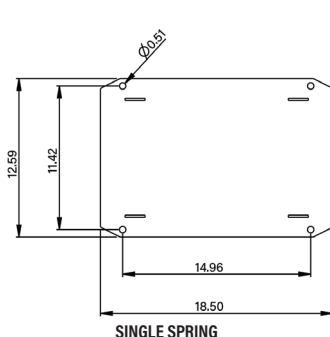
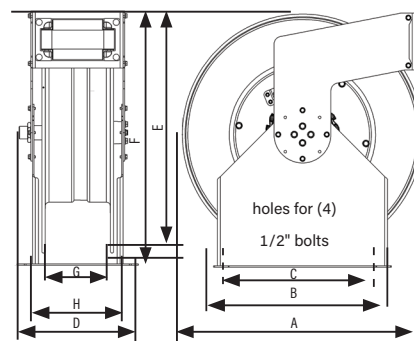
All EVX series reels include hose, hose stop and a 2.5' connecting hose.

MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water and anti-freeze		
2310-034	Bare reel, 50' x 1" ID hose or 75' x 1/2" ID hose	-
2310-035**	Bare reel, 75' x 3/4" ID hose or 100' x 1/2" ID hose	-
2310-036**	75' x 1/2" ID hose	8141-075
2310-037**	100' x 1/2" ID hose	8141-100
2310-038**	75' x 3/4" ID hose	8161-075
2310-039	50' x 1" ID hose	8181-050
Oil Medium Pressure 1,525 psi (105 bar) & 2,320 (160 bar) for delivery of lubricants		
2310-035**	Bare reel, 75' x 3/4" ID hose or 100' x 1/2" ID hose	-
2310-045**	50' x 1" ID hose 1,500 psi	8281-050
2310-041**	75' x 3/4" ID hose 1,525 psi	8264-075
2310-040**	100' x 1/2" ID hose 2,320 psi	8250-100
2310-049**	75' x 1/2" ID hose	-
Diesel & Evacuation Low Pressure 50 psi (3 bar) for delivery of diesel fuel and used oil evacuation*		
2310-034	Bare reel, 50' x 1" ID hose or 75' x 1/2" ID hose	-
2310-043	50' x 1" ID hose Diesel	8481-050
2310-042	50' x 1" ID hose Evacuation	8181-050
2310-050	30' x 1" ID hose Evacuation	8281-050

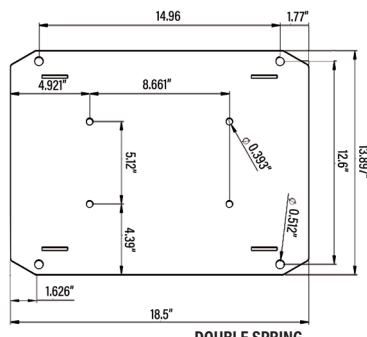
* Verify that system design supports the use of an evacuation reel.

** Double spring reel

TECHNICAL DATA	
Low & Medium Pressure Reels	
Fluid inlet port	1" NPT(F) swivel
Fluid outlet port	1" NPT(F) swivel
Hose outlet thread	1/2" NPT(M) for 1/2" ID Hoses
	3/4" NPT(M) for 3/4" ID Hoses
	1" NPT(M) for 1" ID Hoses
Wetted Materials	Nickel plated steel and Buna-N™
Service Bulletin	SB 2029



SINGLE SPRING



DOUBLE SPRING

Single Spring Dimensions inches (MM)							
A	B	C	D	E	F	G	H
25" (635 mm)	18.5" (470 mm)	15" (381 mm)	12.6" (321 mm)	25" (635 mm)	26.5" (674 mm)	7" (178 mm)	11.4" (290 mm)

Double Spring Dimensions inches (MM)							
A	B	C	D	E	F	G	H
25" (635 mm)	18.5" (470 mm)	15" (381 mm)	13.9" (354 mm)	25" (635 mm)	26.5" (674 mm)	8.5" (216 mm)	12.6" (321 mm)

Hose Reels

Extended Volume Extra (EVX)

EVX Hose Reel Description

The Balcrank EVX Series hose reels are designed for high volume, heavy-duty applications where large hose diameters are required for increased flow. EVX reel is ideal for heavy-duty fleet, construction, mining, aviation, and industrial applications.

All EVX series reels include hose, hose stop and a 2.5' connecting hose.

EVX Hose Reel Specifications:

- 2.1. All Balcrank EVX reels will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be tangent pulled from 360°
- 2.2. All Balcrank EVX reels will have a heavy-gauge Steel twin pedestal and hose guide assembly for superior rigidity and increased strength for extreme-duty applications.
- 2.3. All Balcrank EVX reels will have capacity to handle a maximum of 100 ft. of hose, depending on fluid application and hose diameter.
- 2.4. All Balcrank EVX reels will include hose, hose stop, and a 2.5' connecting hose.
- 2.5. All Balcrank EVX reels will utilize a power-spring made from fatigue resistant Steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.6. All Balcrank EVX hose reels will have a 7-position twin guide arm for multiple installation options; ceiling, wall, floor, tank, cabinet, or mobile lube applications.
- 2.7. All Balcrank EVX hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface that is Nickel plated to provide excellent corrosion resistance and fluids compatibility.
- 2.8. All Balcrank EVX reels will utilize a 10-position heavy-duty cast latch mechanism for secure hose lock performance at desired hose length.
- 2.9. All Balcrank EVX reels will have a dual spool mount sealed ball bearings that reduce power spring fatigue, wear, and facilitates a smooth, and balanced operation during delivery hose extension and retraction.
- 2.10. All Balcrank EVX reel components will be individually powder coated prior to assembly for corrosion resistance.
- 2.11. All Balcrank EVX reels will incorporate a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of spool.

Materials

- 3.1. The wetted materials will consist of Nickel-plated Steel and Buna-N™.

Warranty

- 4.1. The EVX Hose reel will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).

Hose Reels

Extended Volume+ (EVX+)

Air & Water

Anti-freeze

Diesel

The Extended Volume+, EVX+ Series hose reel is designed for extreme heavy-duty applications where large hose diameters are required for increased flow. The dual spring EVX+ reel will accommodate up to 50' of 1 1/2" ID hose. Perfect for heavy-duty fleet, construction, mining and industrial applications.

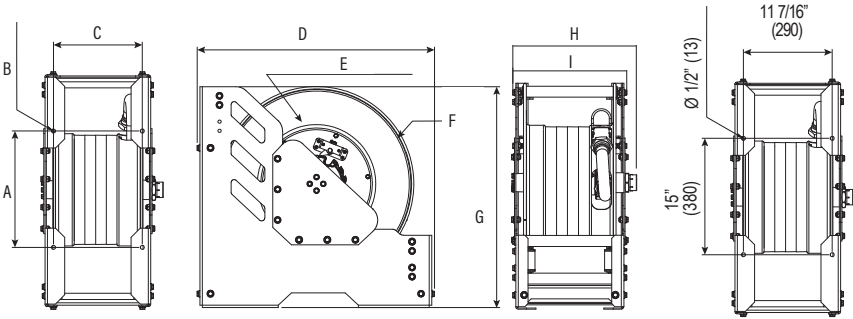
Hose not included



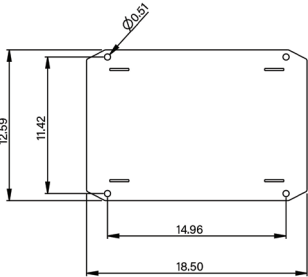
Hose Reels

MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air, Water, Diesel & Low Pressure Oil Transfer 580 psi (21 bar) for delivery of air, water, diesel & oil transfer		
2310-047	Bare reel - up to 50' x 1 1/2"	-
2310-029	Bare reel - up to 75' x 1 1/2"	-

TECHNICAL DATA	
Diesel, Low Pressure Reels	
Fluid inlet port	1 1/2" NPT(F) swivel
Fluid outlet port	1 1/2" NPT(F) swivel
Hose outlet thread	1 1/2" NPT(M) for 1 1/2" ID Hoses
Wetted Materials	Steel, nickel plated steel, Nitrile rubber, nickel plated aluminum
Service Bulletin	SB 2038



Dimensions inches (MM)								
A	B	C	D	E	F	G	H	I
15" (381 mm)	0.5" (13 mm)	11.43" (291 mm)	30.5" (775 mm)	14.37" (365 mm)	25" (635 mm)	28.25" (718 mm)	15.5" (394 mm)	14.25" (362 mm)



Hose Reels

Extended Volume+ (EVX+)

EVX+ Hose Reel Description

The **Extended Volume+, EVX+ Series hose reel** is designed for **extreme heavy-duty applications** where large hose diameters are required for increased flow. The dual spring EVX+ reel will accommodate up to 50' of 1 1/2" hose. Perfect for heavy-duty fleet, construction, mining and industrial applications.

EVX Hose Reel Specifications:

- 2.1. All Balcrank EVX+ reels will have a pinch free, four-way roller hose guide that reduces hose wear and allows for delivery hose to be tangent pulled from 360°
- 2.2. All Balcrank EVX+ reels will have a heavy-gauge steel twin pedestal and hose guide assembly for superior rigidity and increased strength for extreme-duty applications.
- 2.3. All Balcrank EVX+ reels will have capacity to handle a maximum of 50 ft. of hose, depending on fluid application and hose diameter.
- 2.4. All Balcrank EVX+ reels will utilize a power-spring made from fatigue resistant steel that is enclosed in a lubricated spring canister to protect against the environment.
- 2.5. All Balcrank EVX+ hose reels will include a full port, pressure balanced, swivel that produces minimal pressure loss with a flow path surface that is nickel plated to provide excellent corrosion resistance and fluids compatibility.
- 2.6. All Balcrank EVX+ reels will utilize a 10-position heavy-duty cast latch mechanism for secure hose lock performance at desired hose length.
- 2.7. All Balcrank EVX+ reels will have a dual spool mount sealed ball bearings that reduce power spring fatigue, wear, and facilitates a smooth, and balanced operation during delivery hose extension and retraction.
- 2.8. All Balcrank EVX+ frame and spool components will be individually powder coated prior to assembly for corrosion resistance.
- 2.9. All Balcrank EVX+ reels will incorporate a de-clutching mechanism that eliminates the possibility of spring damage due to reverse winding of spool.
- 2.10. All Balcrank EVX+ reels will not include hose.

Materials

- 3.1. The wetted materials will consist of Steel, Nickel-plated Steel, Nitrile rubber, Nickel-plated aluminum.

Warranty

- 4.1. The EVX+ Hose reel will have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The reel hoses will have a 1-year replacement only warranty (defects in materials and workmanship only).

Enclosed Hose Reels

All metal enclosed cabinet hose reels are designed to improve the appearance of any shop. Standard color is black and six special colors are available to match workbenches, and automotive lifts.

CHOOSE YOUR REEL

MODELS AVAILABLE	DESCRIPTION
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water and anti-freeze	
2251-338	30' x 3/8" ID hose
2251-538	50' x 3/8" ID hose
2251-312	30' x 1/2" ID hose
2251-512	50' x 1/2" ID hose
Oil Medium Pressure 3,000 psi (207 bar) for delivery of lubricants	
2252-312	30' x 1/2" ID hose
2252-512	50' x 1/2" ID hose
Grease High-pressure 4,000 (276 bar) for delivery of grease	
2253-314	30' x 1/4" ID hose
2253-538	50' x 3/8" ID hose



ADD A LIGHT OR ELECTRIC REEL

MODELS AVAILABLE	DESCRIPTION
2254-518	Light Cord Reel & Bracket 50' x 18 gauge
2254-518D	Dual Light - 2 Light Cord Reels & Bracket - fits 1 single enclosure 50' x 18 gauge
2254-316	Electric Cord Reel & Bracket 30' x 10 amps, 3 outlet
2254-316D	Dual cord reel & bracket 30' x 10 amp, 3 outlet



2254-316



2254-518D

CHOOSE YOUR SIDE ENCLOSURE

Order 1 side enclosure kit per reel

Side enclosure kits include: 2 side panels, 1 roller outlet assembly, 1 quick mounting plate, and hardware

MODELS AVAILABLE	DESCRIPTION
2250-011	Kit, side enclosure black semi-gloss
2250-012	Kit, side enclosure white
2250-013	Kit, side enclosure green
2250-014	Kit, side enclosure blue
2250-015	Kit, side enclosure red
2250-016	Kit, side enclosure silver
2250-017	Kit, side enclosure yellow



CHOOSE YOUR END PANEL KIT

Order 1 end panel kit per reel bank

End panel kits include: 2 end panels, 2 poly end panel inserts, 1 end bar support, and hardware.
End Panel insert standard color is black. To order a white insert add a "W" to the model number, listed below.
example - 2250-003W = kit, end panels green with white end panel insert.

MODELS AVAILABLE	DESCRIPTION
2250-001	Kit, end panels black semi-gloss
2250-002	Kit, end panels white
2250-003	Kit, end panels green
2250-004	Kit, end panels blue
2250-005	Kit, end panels red
2250-006	Kit, end panels silver
2250-007	Kit, end panels yellow



Air & Water Anti-freeze Windshield wash Oil Grease

Balcrank recommends using mounting channels or framing strut for installation of these enclosures.

- All steel cabinets have high quality, powder coated finish providing corrosion resistance
- Cabinet design provides smooth and easy operation: prevents hose pinch and reduces wear when pulling from any angle
- Simple installation and serviceability
- Cabinet design ties all reels in the bank together to form one complete rigid structure
- Aluminum end panels with removable poly inserts provide fast and easy serviceability

Channels are designed to build a bank of reels

- When mounting directly to an I-Beam, use Mounting Channel I-Beam Bracket Kit #2230-002 to mount channel to a structural I-Beam.

Enclosed hose reels not recommended for wall-mounting

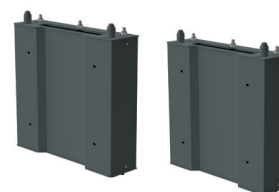
MODELS	DESCRIPTION
2230-003	Mounting Channel - 1 Reel
2230-004	Mounting Channel - 2 Reel
2230-005	Mounting Channel - 3 Reel
2230-007	Mounting Channel - 5 Reel
2230-002	Mounting Channel I-Beam Bracket Kit. Use two bracket kits for 2 or 3 reels. Use 3 brackets for 5 or 6 reels.



Hose reel stands

Heavy duty solid steel stands offer an alternative to ceiling or wall mounting hose reels. All stands include mounting plates, gray finish and drip trays to keep unwanted oil off the floor. Available in 3, 5 and 6 reel models. Designed to fit the Evolution, Classic, and Premium Signature series hose reels.

MODELS AVAILABLE	DESCRIPTION
2230-027	3 reel hose stand. Dimensions: 47 x 15.5 x 87.5 inches.
2230-028	5 reel hose stand. Dimensions: 68.9 x 15.75 x 86.6 inches.
2230-029	6 reel hose stand. Dimensions: 78 x 30 x 103 inches.



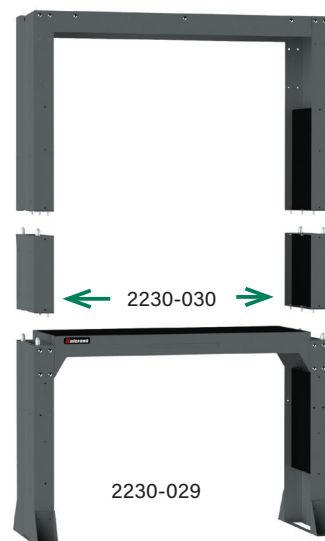
2230-030

Hose reel stand options

Accessories are available for use with the six reel stand 2230-029 only. Height extension kits increase the stand height by another 20" and expansion brackets allow for an additional 2-4 reels (2 on each side) to be mounted with a total of 10 possible hose reels. Drip tray keeps unwanted fluids off the floor.

MODELS AVAILABLE	DESCRIPTION
2230-030	Height extension kit Adds 20" additional height. Sold in pairs
2230-031	Expansion bracket Allows 2 additional reels to be mounted on each side of the hose reel stand
2230-035	Drip Tray for use with expansion bracket 2230-031. Purchase one per Expansion bracket

for large quantities check lead times with your Balcrank Representative.





Control
Handles

Mechanical Oval Gear Meter Control Handle

Control Handles

Product Selection Matrix

UNIT OF MEASURE	FLOW RANGE	MAX. PRESSURE	WEIGHT	RECOMMENDED FLUIDS
NON-METERED				
-	0.26 - 10.5 gal/min (1-40 l/min)	1,450 psi (100 bar)	3.30 lb (1.5 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
DR SERIES METERED				
gallon, quart, pint, liter	0.26 - 8 gal/min (1-30 l/min)	1,450 psi (100 bar)	4 lb (1.80 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
MO SERIES METERED				
quart, liter	0.26 - 8 gal/min (1-30 l/min)	1,000 psi (70 bar)	4 lb (1.80 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
MR SERIES METERED				
quart, liter	0.26 - 8 gal/min (1-30 l/min)	1,450 psi (100 bar)	3.75 lb (1.7 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
MR SERIES PRESET METERED				
gallon, quart, liter	0.25 - 8 gal/min (1-30 l/min)	1,450 psi (100 bar)	4.4 lb (2 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
HIGHFLO NON-METERED				
-	0.26 - 24 gal/min (1- 90 l/min)	1,450 psi (100 bar)	4.5 lb (2.05 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
HIGHFLO METERED				
gallon, quart, pint, liter	0.52 - 19 gal/min (2-70 l/min)	1,450 psi (100 bar)	6.3 lb (2.85 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
ELECTRONIC PRESET METERED				
gallon, quart, pint liter	0.2 - 8 gal/min (0.8- 30 l/min)	1,425 psi (100 bar)	3.7 lb (1.7 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
BFH2 FLUID HANDLE NON- METERED				
-	8 gal/min (30 l/min)	725 psi (50 bar)	0.63 lb (284 kg)	DEF, windshield wash solutions, glycol, and anti-freeze
BFH2 FLUID HANDLE METERED				
gallon, quart, pint, liter	8 gal/min (30 l/min)	435 psi (30 bar)	1.81 lb (819 kg)	DEF, windshield wash solutions, glycol, and anti-freeze



DR SERIES



**MO SERIES
METERED**



**MR SERIES
METERED**



**MR SERIES
PRESET METERED**



**HIGHFLO
SERIES**

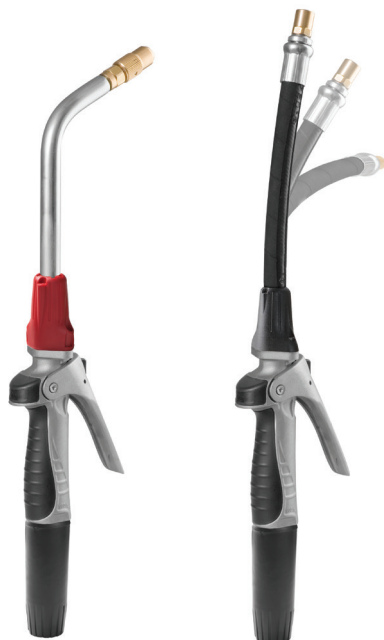


**ELECTRONIC
PRESET METERED**



**BFH2 METERED
SERIES**

Control Handles Non-Metered



**Synthetic and mineral
based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol)
and anti-freeze water
solution**

- Fully ported, ball bearing, inlet swivel included
- Easy access fluid inlet screen included at swivel
- Included swivel hose-end cover, protects vehicle or machine surfaces from scratches
- Easy access for service of the rotary piston mechanism
- Trigger lock button prevents accidental control valve opening and allows the control valve to be locked in open position for large volumes dispense
- Cam & piston valve design optimized for superb control and minimal flow resistance
- Ergonomically designed grip handle for optimum comfort

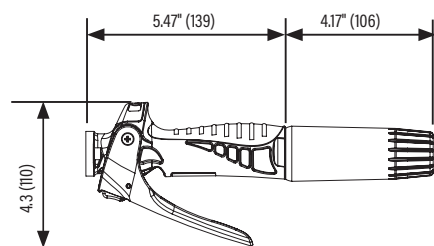
Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets
- Mining and construction
- Lube trucks
- Railroad and mass transit

TECHNICAL DATA

Flow Rate	0.26-10.5 gal/min (1-40 l/min)
Maximum pressure	1,450 psi (100 bar)
Swivel Inlet	1/2" NPT(F) Swivel
Dispense Nozzle OD	Auto = 0.605" Manual 1/4 turn for OIL = 0.705" Manual 1/4 turn for ATF = 0.315" Verify ID of ATF fill port for compatibility
Operating Temperature	14° F to 140° F (-10° C to 60° C)
Weight	3.30 lb (1.5 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Aluminum, stainless steel, zinc alloy, Buna-N™, zinc plated steel and brass
Service Bulletin	SB 3095

Dimensions inches (mm)



833398 Multi Colored set; red, yellow, green, blue (4 pcs)

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE
Verify ID of ATF fill port for compatibility.		
3320-026	Flex Auto	3332-095
3320-022	Rigid 1/4 turn - OIL	3332-091
3320-023	Flex 90 1/4 turn - OIL	3332-092
3320-024	Flex Memory 1/4 turn - OIL	3332-093
3320-032	Flex Memory 1/4 turn - ATF	3332-104
3320-056	Bare	-

Non-Metered Control Handles Description

- 1.1. Non-metered control handle will have an precision machined Aluminum die cast body with mold in-place ergonomic soft grip for comfort and balance.
- 1.2. Non-metered control handle will accept many styles of dispense tips; ¼ turn manual, automatic tip and semi automatic tips available. All Balcrank tips are fast and easy to operate.
- 1.3. Non-metered control handle will fit many styles of fluids extensions: Rigid, Flex, Flex 90 and Memory-flex (Memory-flex can be adjusted to any shape and it will retain its shape until technician re-adjusts it.)
- 1.4. Non-metered control handle will have die cast flange coupling eliminating the use of a threaded connection. Flange coupling provides superior integration for meter and handle.
- 1.5. Non-metered control handle will include rubber swivel cover that protects painted surfaces from scratches. A shroud is used for fluid identification, other shroud colors available; red, blue, yellow, green, and black.
- 1.6. Non-metered control handle will have a sealed ball bearing swivel capable of 8 Gal/m with integrated inlet strainer to remove debris that may cause dispense valve failure.
- 1.7. Non-metered control handle will have a trigger lock button that prevents accidental fluid dispense, can also be used to lock trigger in the open dispense position when used in conjunction with a fluid inventory system. Open dispense position can be disabled for those that do not need this feature.

Non-Metered Control Handles Specifications:

- 2.1. All Non-metered control handle will have a flow rate of 0.26-10.5 gal/m (1-40 l/m)
- 2.2. All Non-metered control handle will have a maximum working pressure of 1,450 psi (100 bar)
- 2.3. All Non-metered control handle will have a sealed ball bearing swivel with 1/2" NPT (F) threads and a integrated inlet strainer made of 40 mesh material.
- 2.4. All Non-metered control handle will have an operating temperature of 14°F to 140°F (-10°C - 60°C)
- 2.5. All Non-metered control handle will weight 3.30 lb (1.5 kg)
- 2.6. All Non-metered control handle will come standard with one rubberized swivel cover and one fluid identification shroud-black; additional shroud colors sold separately: red, blue, yellow, and green.

Materials

- 3.1. The wetted materials will consist of Aluminium, Zinc Alloy, Buna-N™, Zinc Plated Steel, Stainless Steel, and Brass.

Warranty

- 4.1. Non-metered control handle have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles DR Meter (Digital Register Meter)

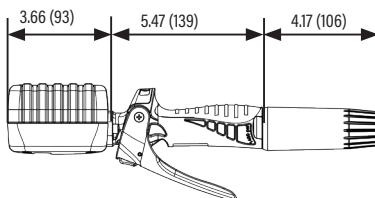


See Dispense nozzle OD for important details

TECHNICAL DATA

Units of measure	Batch: Gallons, Quarts, Pints, and Liters (in 0.01 increments)
Accuracy	+/- 0.5% of reading (lubricating oils)
Flow Range	0.26-8 gal/min (1-30 l/min)
Maximum pressure	1,450 psi (100 bar)
Swivel inlet	1/2" NPT(F)
Dispense Nozzle OD	Auto = 0.605" Manual 1/4 turn for OIL = 0.705" Manual 1/4 turn for ATF = 0.315" Verify ID of ATF fill port for compatibility
Operating temperature	14° F to 140° F (-10° C to 60° C)
Weight	4 lb (1.80 kg)
Battery	2 x 1.5 v alkaline "AAA"
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Liquid Crystal Polymer (LCP), aluminum, Buna-N™, zinc plated steel, stainless steel, neodymium, and brass
Service Bulletin	SB 3095

Dimensions inches (mm)



833398 Multi Colored set; red, yellow, green, blue (4 pcs)

Synthetic and mineral based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol) and anti-freeze water solution

- Sealed battery compartment; 2 AAA batteries
- Precision robotically machined aluminum die-cast fluid chamber for repeatable accuracy
- Low power consumption with auto sleep function
- Trip mode function; can operate as a simple fluid management device
- Non-resettable totalizer; maintains total volume of meter since day one
- Ergonomic comfort handle
- Unique 1/4 turn manual tip; fast, simple
- Flanged coupling; prevents leaks commonly found in competitive meters
- Swivel protective cover
- Affordable reparability

Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets
- Mining and construction
- Lube trucks

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE
Verify ID of ATF fill port for compatibility.		
3330-161	Flex Auto	3332-095
3330-157	Rigid 1/4 turn - OIL	3332-091
3330-158	Flex 90 1/4 turn - OIL	3332-092
3330-159	Flex-memory 1/4 turn - OIL	3332-093
3330-169	Rigid 1/4 turn - ATF	3332-101
3330-172	Flex-memory 1/4 turn - ATF	3332-104
3330-159B	Flex-memory 1/4 turn - OIL (qty. 10)	3332-093
3330-172B	Flex-memory 1/4 turn - ATF (qty. 10)	3332-104
3330-166	DR bare	-

Control Handles

DR Meter (Digital Register Meter)

DR Metered Control Handle Description

- 1.1. DR Meter will not require field calibration.
- 1.2. DR Meter Aluminum machined housing will be totally encased by polycarbonate with TP Elastomer over mold. This provides superior impact resistance while isolating the electronic register module (ERC).
- 1.3. DR Meter battery compartment will be sealed, requiring no cables to the ERC.
- 1.4. DR Meter will have a low power consumption indicator controlled by the ERC with auto-sleep function that is activated after 30 seconds of non-use.
- 1.5. DR Meter will have a resettable trip function: the resettable trip function can operate as an economical, means to reconcile your fluid inventory.
- 1.6. DR Meter will have a non-resettable totalizer function: shows total amount of fluid that has flowed through the meter and is tamper proof.
- 1.7. Control handle will have an precision machined Aluminum die cast body with mold in-place ergonomic soft grip for comfort and balance.
- 1.8. Control Handle can accept many styles of dispense tips; ¼ turn manual, automatic tip and semi automatic tips available. All Balcrank tips are fast and easy to operate.
- 1.9. Control Handle will fit many styles of fluids extensions: Rigid, Flex, Flex 90 and Memory-flex (Memory-flex can be adjusted to any shape and it will retain its shape until technician re-adjusts it.)
- 1.10. Control Handle will have die cast flange coupling eliminating the use of a threaded connection. Flange coupling provides superior integration for meter and handle.
- 1.11. Control handle will include rubber swivel cover that protects painted surfaces from scratches. A shroud is used for fluid identification, other shroud colors available; red, blue, yellow, green, and black.
- 1.12. Control Handle will have a sealed ball bearing swivel capable of 8 Gal/m with integrated inlet strainer to remove debris that may cause dispense valve failure.
- 1.13. Control Handle will have a trigger lock button that prevents accidental fluid dispense, can also be used to lock trigger in the open dispense position when used in conjunction with a fluid inventory system. Open dispense position can be disabled for those that do not need this feature.

DR Series Metered Control Handles Specifications:

- 2.1. All DR meters will measure in quart, liter, pint, and gallon; totalizer unit of measure is gallons.
- 2.2. All DR meters will have a measurement accuracy of +/- 0.5%
- 2.3. All DR metered control handles will have a flow rate of 0.26-8 gal/m (1-30 l/m)
- 2.4. All DR metered control handles will have a maximum working pressure 1,450 psi (100 bar)
- 2.5. All DR metered control handles will have a sealed ball bearing swivel with 1/2" NPT (F) threads and a integrated inlet strainer made of 40 mesh material.
- 2.6. DR metered control handles will have an operating temperature of 140°F to 160°F (-10°C to 60°C)
- 2.7. DR metered control handles will weight 4 lb (1.80 kg)
- 2.8. DR meter will have a power source is two alkaline 1.5v "AAA" battery size.

Materials

- 3.1. The wetted materials will consist of Liquid Crystal Polymer (LCP), Aluminium, Buna-N™, Zinc Plated Steel, Stainless Steel, Neodymium, and Brass.

Warranty

- 4.1. DR control handle meters have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles

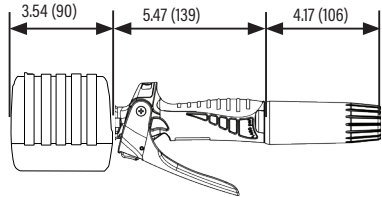
MO Meter (Mechanical Oval Gear Meter)



See Dispense nozzle OD for important details

TECHNICAL DATA	
Units of measure	Quarts & Liters (totalizer Gallons)
Accuracy	+/- 1%
Flow Rate	0.25 - 8 gal/min (1 - 30 l/min)
Maximum pressure	1,000 psi (70 bar)
Swivel inlet	1/2" NPT(F)
Dispense Nozzle OD	Auto = 0.605" Manual 1/4 turn for OIL = 0.705" Manual 1/4 turn for ATF= 0.315" Verify ID of ATF fill port for compatibility
Operating temperature	14° F to 140° F (-10° C to 60° C)
Weight	4 lb (1.80 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Acetal, aluminum, stainless steel, NBR, Zinc plated steel, TPU, Polyamide
Service Bulletin	SB 3113

Dimensions inches (mm)



833398 Multi Colored set; red, yellow, green, blue (4 pcs)

Synthetic and mineral based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol) and anti-freeze water solution

- Meter with odometer display, works without batteries and performs well in all environments
- 6-digit totalizer; keeps lifetime record of volume dispensed in gallons
- No calibration required; precision machined metering chamber assures repeatable accuracy
- Ergonomically designed grip handle for optimum comfort
- Unique 1/4 turn manual non-drip tip; fast, simple
- Included swivel hose-end cover, protects vehicle or machine surfaces from scratches

Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets
- Mining and construction
- Lube trucks

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE U/M	
Verify ID of ATF fill port for compatibility.			
3330-205	Flex-memory 1/4 turn - OIL	3332-093	QT
3330-206	Flex-memory 1/4 turn - ATF	3332-104	QT
3330-207	Rigid 1/4 turn - OIL	3332-091	QT
3330-208	Flex 90 1/4 turn - OIL	3332-092	QT
3330-212	Flex-memory 1/4 turn - OIL	3332-093	L
3330-213	Flex 90 1/4 turn - ATF	3332-104	L
3330-214	Rigid 1/4 turn - OIL	3332-091	L
3330-215	Flex-memory 1/4 turn - OIL	3332-092	L
3330-204	Bare	-	QT
3330-211	Bare	-	L

Control Handles

MO Meter (Mechanical Oval Gear Meter)

MO Metered Control Handle Description

- 1.1. MO Meter will have a 6-digit totalizer; keeps lifetime record of volume dispensed in gallons.
- 1.2. MO Meter will have odometer display, works without batteries and performs well in all environments.
- 1.3. MO Meter requires no calibration; precision machined metering chamber assures repeatable accuracy.
- 1.4. MO Meter will have an ergonomically designed grip handle for optimum comfort.
- 1.5. MO Meter will have a unique 1/4 turn manual non-drip tip; fast, simple.
- 1.6. MO Meter will have an included swivel hose-end cover, protects vehicle or machine surfaces from scratches.

MO Series Metered Control Handles Specifications:

- 2.1. All MO meters will measure in quart and liter; totalizer unit of measure is gallons.
- 2.2. All MO meters will have a measurement accuracy of +/- 1%
- 2.3. All MO metered control handles will have a flow rate of 0.25-8 gal/m (1-30 l/m)
- 2.4. All MO metered control handles will have a maximum working pressure 1,000 psi (70 bar)
- 2.5. MO metered control handles will have an operating temperature of 140°F to 140°F (-10°C to 60°C)
- 2.6. MO metered control handles will weight 4 lb 1.80 kg)

Materials

- 3.1. The wetted materials will consist of Acetal, Aluminium, Stainless Steel, NBR, Zinc plated steel, TPU, and Polyamide.

Warranty

- 4.1. MO control handle meters have a 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles

MR Meter (Mechanical Registry Meter)



Gallons



Liters

See Dispense nozzle OD for important details

TECHNICAL DATA

Units of measure	Gallons and Liters (in 0.01 increments)
Accuracy	+/- 0.65%
Flow Rate	0.26 - 8 gal/min (1 - 30 l/min)
Maximum pressure	1,450 psi (100 bar)
Swivel Inlet	1/2" NPT(F) Swivel
Dispense Nozzle OD	Auto = 0.605" Manual 1/4 turn for OIL = 0.705" Manual 1/4 turn for ATF= 0.315" Verify ID of ATF fill port for compatibility
Operating Temperature	14° F to 140° F (-10° C - 60° C)
Weight	3.75 lb (1.7 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Aluminum, stainless steel, zinc alloy, Buna-N™, zinc plated steel and brass
Service Bulletin	SB 3096

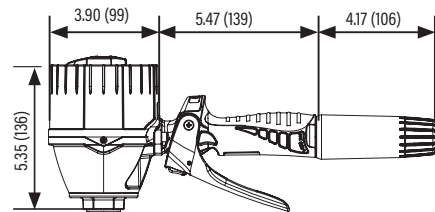
Synthetic and mineral based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol)

- 1 piece molded pointer knob is resistant to impacts
- No calibration required; precision machined metering chamber assures repeatable accuracy
- Viscosity and temperature change does not effect accuracy
- 33% improved performance over competitive mechanical meters
- 5-digit totalizer; keeps lifetime record of volume dispensed
- Easy access filter in swivel at meter inlet
- Swivel protective cover
- Unique 1/4 turn manual tip; fast, simple
- Flanged coupling; prevents leaks commonly found in competitive meters
- Ergonomic comfort handle

Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets
- Mining and construction
- Lube trucks
- Railroad and mass transit

Dimensions inches (mm)



MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE U/M
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Verify ID of ATF fill port for compatibility.

3330-189	Rigid 1/4 turn-OIL	3332-091	Qt
3330-192	Flex Memory 1/4 turn-OIL	3332-093	Qt
3330-196	Flex Memory 1/4 turn-ATF, Anti-freeze	3332-104	Qt
3330-177	Rigid 1/4 turn-OIL	3332-091	L
3330-180	Flex Memory 1/4 turn-OIL	3332-093	L
3330-184	Flex Memory 1/4 turn-ATF, Anti-freeze	3332-104	L
3330-202	MR Bare	-	L
3330-203	MR Bare	-	Qt

Control Handles

MR Meter (Mechanical Registry Meter)

MR Mechanical Registry Control Handles Description

- 1.1. MR meter housing will be polycarbonate based integral register housing and single molded pointer knob will guarantee maximum integrity of the meter against drops and impacts.
- 1.2. MR meter will have a simple and easy to read dial can be read at any time regardless of the ambient temperature or in direct sunlight.
- 1.3. MR meter will have a full metal meter for long life and maximum durability.
- 1.4. MR meter will have larger measuring chamber improves delivery rate up to 0.5-5.3 gal/min (2-20 l/min).
- 1.5. MR meter will have a non-resettable totalizer function: shows total amount of fluid that has flowed through the meter and is tamper proof.
- 1.6. Control handle will have an precision machined Aluminum die cast body with mold in-place ergonomic soft grip for comfort and balance.
- 1.7. Control handle can accept many styles of dispense tips; ¼ turn manual, automatic tip and semi automatic tips available. All Balcrank tips are fast and easy to operate.
- 1.8. Control handle will fit many styles of fluids extensions: Rigid, Flex, Flex 90 and Memory-flex (Memory-flex can be adjusted to any shape and it will retain its shape until technician re-adjusts it.)
- 1.9. Control handle will have die cast flange coupling eliminating the use of a threaded connection. Flange coupling provides superior integration for meter and handle.
- 1.10. Control handle will include rubber swivel cover that protects painted surfaces from scratches.
- 1.11. Control handle will have a sealed ball bearing swivel capable of 8 Gal/m with integrated inlet strainer to remove debris that may cause dispense valve failure.
- 1.12. Control handle will have a trigger lock button that prevents accidental fluid dispense, can also be used to lock trigger in the open dispense position when used in conjunction with a fluid inventory system. Open dispense position can be disabled for those that do not need this feature.

MR Mechanical Registry Control Handles Specifications:

- 2.1. All MR control handles will measure in liters and quarts.
- 2.2. All MR control handles will have a measurement accuracy of +/- 0.65%
- 2.3. All MR control handles will have a flow rate of 0.26-8 gal/min (1-30 l/min)
- 2.4. All MR control handles will have a maximum pressure of 1,450 psi (100 bar)
- 2.5. All MR control handles will have a swivel inlet of 1/2" NPT(F)
- 2.6. All MR control handles will have an operating temperature of 14 °F to 140 °F (-10 °C to 100 °C) and be suitable for extreme temperature conditions
- 2.7. All MR control handles will weight 3.75 lb (1.7 kg)
- 2.8. All MR control handles will come standard with 1 black shroud.

Materials

- 3.1. MR control handles wetted materials will consist of Aluminum, stainless Steel, Zinc alloy, Buna-N™, Zinc plated Steel, and Brass.

Warranty

- 4.1. MR control handle meters have a 2-year parts and labor warranty (defects in materials and workmanship only).
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles

MR Meter (Mechanical Preset Meter)



Synthetic and mineral based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol) and anti-freeze water solution

- MR style meter with preset function.
- Preset mode dispensing allows hands-off operation as the meter automatically shuts off once the preset volume is delivered
- Meter with analogue dial display, works without batteries and performs well in all environment. Includes inlet swivel and rigid outlet with non-drip nozzle
- 1 piece molded pointer knob is resistant to impacts
- No calibration required; precision machined metering chamber assures repeatable accuracy
- Viscosity and temperature change does not effect accuracy
- 33% improved performance over competitive mechanical meters
- 5-digit totalizer; keeps lifetime record of volume dispensed
- Easy access filter in swivel at meter inlet
- Swivel protective cover
- Flanged coupling; prevents leaks commonly found in competitive meters
- Ergonomic comfort handle

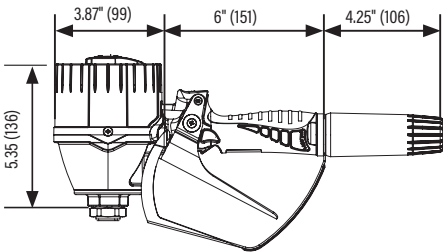
Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets
- Mining and construction
- Lube trucks
- Railroad and mass transit

TECHNICAL DATA

Units of measure	Gallons, Quarts, and Liters
Accuracy	+/- 0.65%
Flow Rate	0.25 - 8 gal/min (1 - 30 l/min)
Maximum pressure	1,450 psi (100 bar)
Swivel inlet	1/2" NPT(F)
Operating temperature	-49° F to 158° F (-45° C to 70° C)
Weight	4.4 lb (2 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Zinc alloy, aluminum, Buna-N™, stainless steel, brass, steel, TPU and polyamide
Service Bulletin	SB 3106

Dimensions inches (mm)



MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	U/M DIAL U/M TOTALIZER
3331-024	Rigid straight Semi-auto tip	0-60 Liters
3331-023	Rigid straight Semi-auto tip	0-60 Quarts
3331-025	Rigid straight Semi-auto tip	0-60 Gallons

Control Handles

MR Meter (Mechanical Preset Meter)

MR Mechanical Preset Control Handles Description

- 1.1. MR style meter with preset function.
- 1.2. Preset mode dispensing allows hands-off operation as the meter automatically shuts off once the preset volume is delivered
- 1.3. 1 piece molded pointer knob is resistant to impacts
- 1.4. No calibration required; precision machined metering chamber assures repeatable accuracy
- 1.5. Meter with analogue dial display, works without batteries and performs well in all environment. Includes inlet swivel and rigid outlet with non-drip nozzle
- 1.6. Viscosity and temperature change does not effect accuracy
- 1.7. 33% improved performance over competitive mechanical meters
- 1.8. 5-digit totalizer; keeps lifetime record of volume dispensed
- 1.9. Easy access filter in swivel at meter inlet
- 1.10. Swivel protective cover
- 1.11. Flanged coupling; prevents leaks commonly found in competitive meters
- 1.12. Ergonomic comfort handle

MR Mechanical Preset Control Handles Specifications:

- 2.1. All MR control handles will measure in Gallons, Quarts, and Liters
- 2.2. All MR control handles will have a measurement accuracy of +/- 0.65%
- 2.3. All MR control handles will have a flow rate of 0.25 - 8 gal/min (1 - 30 l/min)
- 2.4. All MR control handles will have a maximum pressure of 1,450 psi (100 bar)
- 2.5. All MR control handles will have a swivel inlet of 1/2" NPT(F)
- 2.6. All MR control handles will have an operating temperature of -49° F to 158° F (-45° C to 70° C) and be suitable for extreme temperature conditions
- 2.7. All MR control handles will weight 4.4 lb (2 kg)
- 2.8. All MR control handles will come standard with 1 black shroud.

Materials

- 3.1. Mechanical Preset control handles wetted materials will consist of Zinc alloy, aluminum, Buna-N™, stainless steel, brass, steel, TPU and polyamide

Warranty

- 4.1. Mechanical Preset control handle meters have a 2-year parts and labor warranty (defects in materials and workmanship only).
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles HighFlo

**Synthetic and mineral
based lubricants
Gear Oil
Hydraulic oil and fluids
ATF
Anti-freeze (Glycol)**



- HighFlo Control Handle is designed for service where higher volume deliveries are required
- High volume rigid or flexible outlets with non-drip tip
- 3/4" or 1" NPT inlet connection thread
- Ideal for bulk fill, transfer and high flow dispense
- Heavy duty rugged design

Markets Served

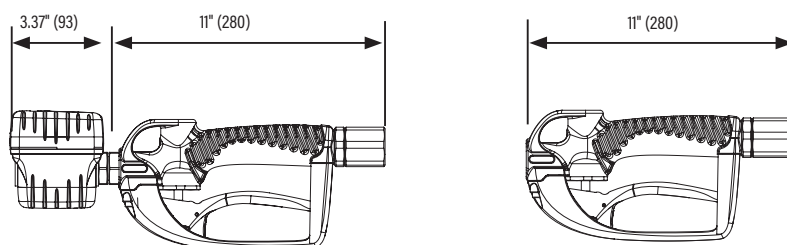
- Truck dealers
- Fleets
- Mining and construction
- Lube trucks
- Railroad and mass transit

TECHNICAL DATA

	NON-METERED	METERED
Units of measure	-	Batch: Liters, quarts, pints, gallons
Accuracy	-	+/-0.5% of reading
Flow Range	0.26-24 gal/min (1-90 l/min)	0.52-19 gal/min (2-70 l/min)
Maximum pressure	1,450 psi (100 bar)	
Swivel inlet:	3/4" or 1" NPT(F)	
Operating Temperature	14 to 140° F (-10 to 60° C)	
Weight	4.5 lb (2.05 kg)	6.3 lb (2.85 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze	
Wetted Materials	Aluminum, Buna-N™, zinc plated steel and brass	Acetal, aluminum, stainless steel, Buna-N™, zinc plated steel and brass
Service Bulletin	SB 3097	SB 3097 + SB 3098

MODELS AVAILABLE	DESCRIPTION
3330-197	Rigid - Metered 3/4" NPT(F) Inlet
3330-198	Flex - Metered 3/4" NPT(F) Inlet
3330-199	Rigid - Metered 1" NPT(F) Inlet
3330-200	Flex - Metered 1" NPT(F) Inlet
3320-051	Rigid - Non-Metered 3/4" NPT(F) Inlet
3320-052	Flex - Non-Metered 3/4" NPT(F) Inlet
3320-053	Rigid - Non-Metered 1" NPT(F) Inlet
3320-054	Flex - Non-Metered 1" NPT(F) Inlet

Dimensions inches (mm)



Control Handles HighFlo

HighFlo Control Handles Description

- 1.1. HighFlo Control Handle is designed for service where higher volume deliveries are required.
- 1.2. High volume rigid or flexible outlets with non-drip tip.
- 1.3. 3/4" or 1" NPT inlet connection thread
- 1.4. Ideal for bulk fill, transfer and high flow dispense.
- 1.5. Heavy duty rugged design.

HighFlo Control Handles Specifications:

- 2.1. All High flow metered control handles will measure in liters, quarts, pints and gallons
- 2.2. All High flow metered control handles will have a measurement accuracy of +/- 0.5%
- 2.3. All High flow non-metered control handles will have a flow rate of 0.52-19 gal/min (2-70 l/min)
- 2.4. All High flow metered control handles will have a flow rate of 0.26-24 gal/min (1-90 l/min)
- 2.5. All High flow control handles have a maximum working pressure of 1,450 psi (100 bar)
- 2.6. All High flow control handles have a swivel inlets of 3/4" NPT(F) & 1" NPT(F)
- 2.7. All High flow control handles will have an operating temperature of 14 °F to 140 °F (-10 °C to 60 °C) and be suitable for extreme temperature conditions
- 2.8. All High flow non-metered control handles will weigh 4.5 lb (2.05 kg)
- 2.9. All High flow metered control handles will weigh 6.3 lb (2.85 kg)

Materials

The wetted materials will consist of

- 3.1. Metered Acetal, Aluminum, stainless Steel, Buna-N™, Zinc plated Steel and Brass
- 3.2. Non-Metered Aluminum, Buna-N™, Zinc plated Steel and Brass

Warranty

- 4.1. All Highflo control handles 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles BFH2 Fluid Handle



AdBlue
Windshield Wash Fluid
Antifreeze
Distilled water
Glycol
Brake fluid

- High chemical compatibility
- Easy flanged meter connection
- Improved ergonomic design
- Increased security

Markets Served

- Truck dealerships
- Fleet service
- Mining and construction
- Railroad and mass transit vehicles
- Lube trucks

TECHNICAL DATA

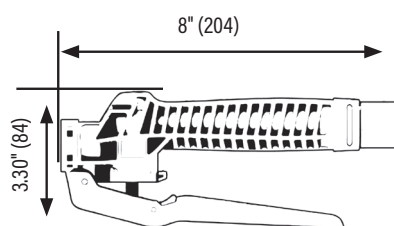
SPECIFICATIONS	FLUID HANDLE	METERED FLUID HANDLE
Units of measure	-	Quarts, pints, gallons, liters
Accuracy	-	± 0,5%
Flow Rate	8 gal/m (30 l/m)	8 gal/m (30 l/m)
Maximum pressure	725 psi (50 bar)	435 psi (30 bar)
Swivel Inlet	1/2" NPT(F)	1/2" NPT(F)
Operating Temperature	14° F to 122° F (-10° C to 50° C)	14° F to 122° F (-10° C to 50° C)
Battery	-	2 x "AAA" alkaline
Weight (with no outlet)	0.63 lb (284 kg)	1.81 lb (819 kg)
Compatible Fluids	-	DEF, Windshield Wash Solutions, Glycol, Anti-freeze
Wetted Materials	PP, Stainless Steel, Acetal, PA, Viton®	Stainless Steel, PVC, LCP, Viton®, PP, Acetal, PA
Maximum/minimum recorded dispense	-	0,01 to 99999 for liters, gallons and quarter units, 0,02 to 99999 for pint units
Service Bulletin	SB 3001	SB 3001 & SB 3095

MODELS AVAILABLE	DESCRIPTION
DEF, Windshield Wash Solutions, Glycol, Anti-freeze	
3320-057	Fluid Handle, 1/2" SS Rigid Outlet, No Tip, Use with DEF
3320-058	Fluid Handle, 1/2" PA Flexible Outlet, No Tip, Use with DEF
3330-216	Metered Fluid Handle, 1/2" SS Rigid Outlet, No Tip, Use with DEF
3330-217	Metered Fluid Handle, 1/2" PA Flexible Outlet, No Tip, Use with DEF
Windshield Wash Solutions, Glycol, Anti-freeze	
3320-059	Fluid Handle, Stainless Steel and Flex 90° 1/4 Turn, Not for DEF
3330-218	Metered Fluid Handle, Stainless Steel and Flex 90° 1/4 Turn, Not for DEF

RECOMMENDED EXTENSIONS

MODELS AVAILABLE	DESCRIPTION
3332-111	Rigid Outlet - no tip (Used with DEF) 1/2" NPT(M)
3332-112	Flexible Outlet - no tip (Used with DEF) 1/2" NPT(M)
3332-113	Stainless Steel Flex 90° 1/4" Turn 1/2" NPT(M)

Dimensions in (mm)



Control Handles

BFH2 Fluid Handle

BFH2 Fluid Control Handles Description

- 1.1. High chemical compatibility
- 1.2. Easy flanged meter connection
- 1.3. Improved ergonomic design
- 1.4. Increased security

BFH2 Fluid Control Handles Specifications:

- 2.1. All BFH2 metered control handles will measure in liters, quarts, pints and gallons
- 2.2. All BFH2 metered control handles will have a measurement accuracy of +/- 0.5%
- 2.3. All BFH2 non-metered control handles will have a flow rate of 8 gal/m (30 l/m)
- 2.4. All BFH2 metered control handles will have a flow rate of 8 gal/m (30 l/m)
- 2.5. All BFH2 non-metered control handles have a maximum working pressure of 725 psi (50 bar)
- 2.6. All BFH2 metered control handles have a maximum working pressure of 435 psi (30 bar)
- 2.7. All BFH2 control handles have a swivel inlets of 1/2" NPT(F)
- 2.8. All BFH2 control handles will have an operating temperature of 14° F to 122° F (-10° C to 50° C) and be suitable for extreme temperature conditions
- 2.9. All BFH2 non-metered control handles will weigh 0.63 lb (284 kg)
- 2.10. All BFH2 metered control handles will weigh 1.81 lb (819 kg)

Materials

The wetted materials will consist of

- 3.1. Metered Stainless Steel, PVC, LCP, Viton®, PP, Acetal, PA
- 3.2. Non-Metered PP, Stainless Steel, Acetal, PA, Viton®

Warranty

- 4.1. All BFH2 Fluid control handles 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Control Handles

EP Meter (Electronic Preset Meter)



Synthetic and mineral based lubricants
Gear oil
Hydraulic fluids
ATF

Preset dispensing allows hands-free operation as the meter automatically shuts off once the desired preset amount is reached.

- Programmable for quarts, pints, gallons, liters
- Save up to 10 preset values in built-in memory
- Operates in manual or automatic preset mode
- Transaction memory: Stores volume delivered of the last 5 transactions
- Low battery indicator

Markets Served

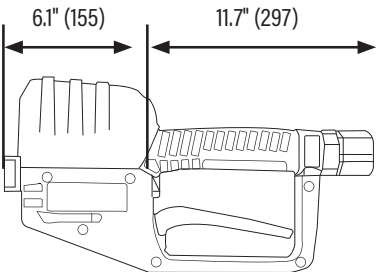
- Auto and truck dealerships
- Truck fast lube and maintenance shops
- Fleets
- Mining and construction
- Railroad and mass transit

TECHNICAL DATA

Units of measure	Quarts, pints, gallons, liters
Accuracy	+/- 0.5 %
Flow Range	0.25-75 gal/m (1-30 l/m)
Maximum pressure	1,425 psi (100 bar)
Swivel Inlet	1/2" NPT(F)
Battery	4 x alkaline "AA"
Weight	3.7 lb (1.7 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, anti-freeze and gear oil
Wetted Materials	Aluminum, AISI316 Stainless Steel, Buna-N™; Delrin, Brass, and Zinc Plated Steel
Service Bulletin	SB 3115

*Patent pending

Dimensions in (mm)



MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE
3331-031	Rigid 1/4 turn - OIL	3332-091
3331-032	Flex Memory - OIL	3332-093
3331-033	DR bare	-

Control Handles

EP Meter (Electronic Preset Meter)

EP Meter Control Handles Description

- 1.1. Programmable for quarts, pints, gallons, liters
- 1.2. Save up to 10 preset values in built-in memory
- 1.3. Operates in manual or automatic preset mode
- 1.4. Transaction memory: Stores volume delivered of the last 5 transactions
- 1.5. Low battery indicator

EP Meter Control Handles Specifications:

- 2.1. All EP Meter control handles will measure in liters, quarts, pints and gallons
- 2.2. All EP Meter control handles will have a measurement accuracy of +/- 0.5%
- 2.3. All EP Meter control handles will have a flow rate of 0.25-7.5 gal/m (1-30 l/m)
- 2.4. All EP Meter control handles have a maximum working pressure of 1,425 psi (100 bar)
- 2.5. All EP Meter control handles have a swivel inlets of 1/2" NPT(F)
- 2.6. All EP Meter control handles will use battery type 4 x alkaline "AA"
- 2.7. All EP Meter control handles will weigh 3.7 lb (1.7 kg)

Materials

The wetted materials will consist of Aluminum, AISI316 Stainless Steel, Buna-N™, Delrin, Brass, and Zinc Plated Steel.

Warranty

- 4.1. All EP Meter control handles 1-year standard warranty on defects in materials and workmanship only.
- 4.2. The control handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).



Fluid Inventory Control Product Selection Matrix



FEATURES	NEX-U	NEX-U COMPACT
Max. number of dispense points	Unlimited	8
Max. number of fluids	Without U-tank: Unlimite With U-tank: 50	8
Fluid names	✓	✓
Number of keypads	Without U-tank: Unlimited With U-tank: 50	1
Job number validation	✓	No
Job numbers	✓	No
Simultaneous keypad operation	✓	No
Simultaneous dispense	✓	✓
Max. number of tanks	Without U-tank: Unlimited With U-tank: 50	8
Calculated tank declining balance	✓	✓
Real-time tank monitoring	✓	No
Tank report over e-mail	✓	No
PIN code validation	✓	No
Operation PIN codes	✓	✓
Max. number of PINs	Unlimited	Unlimited
Extensive user permission configuration	✓	No
Preset volumes	✓	✓
Hose Reel ID	✓	✓
Operator names	✓	✓
Dispense from keypads	✓	✓
Dispense from PC	✓	No
Dispense from smart phone/tablet	✓	No
Max. number of transaction history	U-track: Unlimited U-dat: 5000	Unlimited
Print reports	✓	No
Print receipt	✓	No
Custom reports	✓	No
Bar Code / Card reader / Dallas Key	✓	No
Wireless	✓	No
Bluetooth	✓	No
DMC Integration - CDK	✓	No

Fluid Inventory Control

Nex-U® U-net

U-net is the key NEX-U® component. It is the central processing unit that controls the system communications and houses the U-track software.



Features

- U-net includes a powerful 2.4 GHz processor and 4 GB RAM
- It controls the system functions and manages the wired and wireless communication between the NEX-U® components
- It has two CAN BUS ports (in/out) for wired communications with other NEX-U® components and an ethernet port that allows U-net to connect to the shop LAN

COMPONENT TECHNICAL DATA

Function	Central processing unit that controls the system communications and houses the U-track software
Requirements & Limitations	Intel 2.4 GHz processor - 4 GB RAM memory - 64 GB storage capacity - One Ethernet connection, one HDMI, four USB and two CAN BUS communication ports
Power	110-240V AC - 5V DC transformer included

MODELS AVAILABLE

3110-150	Unit with antenna
3110-133	Virtual Keypad license. Converts any terminal (PC, laptop, tablet or smartphone) into a NEX-U® access Keypad.

U-net also includes the U-track software

U-track is a powerful web-based software package that gives you full control of fluid usage and inventory. It is a web-based software that allows multi-user applications. All PCs or tablets in the same network and in the same location can have access to U-track. U-track can work using any web browser.

Compatible with: Chrome, Firefox, and Microsoft Edge.

U-track benefits:

- Simple and intuitive system set-up
- Simplified system maintenance (manage users, fluid inventory, etc.)
- Manage all the system hard-wired and wireless communication
- Generate a wide variety of reports, which can be easily exported to CSV and txt formats
- Record and manage Validated Preset Transactions (required for operating with U-Vision+)
- Transform any PC terminal in the workshop into a NEX-U® virtual keypad license required

U-track also contributes to increasing your operations efficiency and profitability:

- Keeps control of the quantity of fluid dispensed in the system
- Improves inventory accuracy, generating automatic warnings and email notifications for reorders at critical predefined inventory levels
- Generates a variety of reports, to help you track dispense information such as date and time, technician, work order, fluid dispensed, volume delivered, etc.

U·net Description

- 1.1. U·net includes a powerful 2.4 GHz processor and 4 GB RAM
- 1.2. It controls the system functions and manages the wired and wireless communication between the NEX·U·® components
- 1.3. It has two CAN BUS ports (in/out) for wired communications with other NEX·U·® components and an ethernet port that allows U·net to connect to the shop LAN

U·net Specifications:

- 2.1. All U·net consoles will be the central processing unit that controls the system communications and houses the U·track software
- 2.2. All U·net consoles will have Intel 2.4 GHz processor, 4 GB RAM memory, 64 GB storage capacity, one Ethernet connection, one HDMI, four USB and two CAN BUS communication ports
- 2.3. All U·net consoles will have 110-240V AC - 5V DC transformer included

Warranty

- 3.1. The U·net components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Fluid Inventory Control

Nex-U® U-dat & U-dat Power+

U-dat allows system access to technicians either through a PIN code or by using an RFID card.



Features

- U-dat includes a 7" full color graphics display and a complete QWERTY keypad
- U-dat supports CAN BUS cable communications that carry data and power to open the solenoid valves in the system. "Plug-and-play" connectors make cabling easy
- U-dat includes the transformer required to simultaneously open up to 8 solenoid valves

Power cord not included, use 3130-001.

Optional Bluetooth printer (see accessories pg. 139).

COMPONENT TECHNICAL DATA

Function	Allows system access to technicians either through a PIN code or using a RFID card
Requirements & Limitations	- Requires 110 - 240 V AC - CAN BUS in/out
Power	U-dat requires 110 - 240 V power supply
Service Bulletin	SB 3806

MODELS AVAILABLE

3110-100	U-dat power+ keypad NEX-U® access keypad with 7" color screen and QWERTY keypad. One USB, one RS232 and in/out CAN BUS ports. 110 - 240 V AC, with a 320 W transformer to open 8 solenoid valves, supports CAN BUS communications.
3110-104	U-dat power keypad NEX-U® access keypad with 7" color screen and QWERTY keypad. One USB, one RS232 and in/out CAN BUS ports. 110 - 240 V AC, with a 75 W transformer to open 2 solenoid valves, supports CAN BUS communications.

NEX-U® adapts to the way you work and it offers multiple possibilities for accessing the system.

Technicians can access NEX-U® via:

- U-dat: System access keypad
- U-vision+
- Any device connected to the same network as U-net (laptop, smartphone or tablet)

Compatible with: Chrome, Firefox, and

Microsoft Edge.

U-dat connection panel

All wired connections can be quickly and easily done without opening the U-dat.

It is possible to connect a printer, an external RFID reader, or a barcode reader to the RS-232 port.

Mounting requires Vesa Bracket

U-dat Description

- 1.1. U-dat includes a 7" full color graphics display and a complete QWERTY keypad
- 1.2. U-dat supports CAN BUS cable communications that carry data and power to open the solenoid valves in the system. "Plug-and-play" connectors make cabling easy
- 1.3. U-dat includes the transformer required to simultaneously open up to 8 solenoid valves

U-dat Specifications:

- 2.1. All U-dat consoles allows system access to technicians either through a PIN code or using a RFID card
- 2.2. All U-dat consoles will require 110 - 240 V AC, and CAN BUS in/out
- 2.3. All U-dat consoles will require 110 - 240 V power supply

Warranty

- 3.1. The U-dat components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Fluid Inventory Control

Nex-U.® U-vision & U-vision+

U-vision+ adapts to any Balcrank oil control handle and transforms the handle into a hand-held display and keypad for access to the NEX-U.® system.



Features

Use the U-vision to display reel, battery level, and delivery. Use U-vision+ to dispense and to interact with the system.

- Modular design fits standard non-metered control handle
- Display dispensed data
- Display and input data

Non-metered control handle not included. Choose handle to fit your needs (pg. 108).

COMPONENT TECHNICAL DATA

Function	Hand held display module
Requirements	Non-metered control handle, select on pg. 93
Power	U-vision+ and U-vision are powered with 4 "AA" 1.5 V alkaline batteries
Service Bulletin	
U-vision	SB 3803
U-vision+	SB 3809

MODELS AVAILABLE

3110-112	U-vision hand-held display module
3110-113	U-vision+ hand-held keypad and display module. (Control handle not included)

U-vision

Hand-held display module to fit a Balcrank oil control handle. Includes a backlight display connected via Bluetooth® with a U-valve, U-meter+ or U-count module and it displays the following parameters:

- Hose reel (fluid outlet number and fluid dispensed type)
- Battery life and Bluetooth® signal strength
- Volume delivered and operation progress
- Solenoid valve open or closed

U-vision+

U-vision+ includes a six-button keypad and it can replace the U-dat keypad for data entry in the system as it allows the following operations:

- User access through PIN entry
- Scroll through existing open job orders to select the one corresponding to each operation or enter the job order number (alpha numeric)
- Enter the volume of fluid to be dispensed
- Confirm fluid type and transaction

U-vision Description

Hand-held display module to fit a Balcrank oil control handle. Includes a backlight display connected via Bluetooth® with a U-valve, U-meter+ or U-count module and it displays the following parameters:

- 1.1. Hose reel (fluid outlet number and fluid dispensed type)
- 1.2. Battery life and Bluetooth® signal strength
- 1.3. Volume delivered and operation progress
- 1.4. Solenoid valve open or closed

U-vision Specifications:

- 2.1. All U-vision is an handheld display module
- 2.2. All U-vision will require non-metered control handle
- 2.3. All U-vision are powered with 4 "AA" 1.5 V alkaline batteries

Warranty

- 3.1. The U-vision components will have a 1-year replacement only warranty (defects in materials and workmanship only).

U-vision+ Description

U-vision+ includes a six-button keypad and it can replace the U-dat keypad for data entry in the system as it allows the following operations:

- 1.1. User access through PIN entry
- 1.2. Scroll through existing open job orders to select the one corresponding to each operation or enter the job order number (alpha numeric)
- 1.3. Enter the volume of fluid to be dispensed
- 1.4. Confirm fluid type and transaction

U-vision+ Specifications:

- 2.1. All U-vision+ is an handheld display module
- 2.2. All U-vision+ will require non-metered control handle
- 2.3. All U-vision+ are powered with 4 "AA" 1.5 V alkaline batteries

Warranty

- 3.1. The U-vision+ components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Features

- Dispensing Meter Valve with wireless communication and RFID module
- Metered Dispensing Valve allows full transaction control and track

Optional ZigBee Signal Repeater (see accessories pg. 139).



COMPONENT TECHNICAL DATA

Units of measure	Batch: Gallons, Quarts, Pints, and Liters (in 0.01 increments)
Accuracy	± 0.5 % (Oil); ± 1% (Coolant solutions)
Flow Range	0.25 to 7.25 gal/min (1-30 l/min)
Maximum pressure	1,425 psi (100 bar)
Swivel inlet	1/2" NPT(F)
Swivel outlet	1/2" NPT (F)
Viscosity Range	Up to 2000 mPa.s
Display	LCD
Operating temperature	14 °F to 122 °F (-10 °C to 50 °C)
Weight (with no outlet)	4.6 lb (1.2 kg)
Battery	4 x AA Alkaline 1.5V
Compatible Fluids	Motor oil, hydraulic oil, Anti-freeze, gear oil, automatic transmission fluid
Wetted Materials	Aluminum, Buna-N™, Zinc plated steel, AISI 316 stainless steel, Brass, Delrin
Service Bulletin	

MODELS AVAILABLE

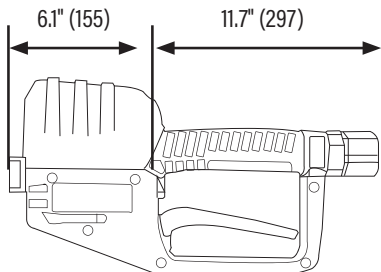
3110-152	U-link, no outlet
3110-153	U-link, with 60° rigid outlet and 1/4 turn non drip tip
3110-154	U-link, with 90° flexible outlet and 1/4 turn non drip tip

CATEGORY

SPECIFICATION

Frequency band	ISM 2.4 GHz, DSSS (Direct Sequence Spread Spectrum)
Protocol	Wireless communication and RFID
Encryption	128/256 bit AES

Dimensions in (mm)



U-link Description

- 1.1. Dispensing Meter Valve with wireless communication and RFID module
- 1.2. Metered Dispensing Valve allows full transaction control and track

U-link Specifications:

- 2.1. All U-links will measure in Batch: Gallons, Quarts, Pints, and Liters (in 0.01 increments)
- 2.2. All U-links will have a measurement accuracy of $\pm 0.5\%$ (Oil); $\pm 1\%$ (Coolant solutions)
- 2.3. All U-links will have a flow rate of 0.25-7.5 gal/m (1-30 l/m)
- 2.4. All U-links have a maximum working pressure of 1,425 psi (100 bar)
- 2.5. All U-links have a inlets of 1/2" NPT(F)
- 2.6. All U-links have a outlet of 1/2" NPT(F)
- 2.7. All U-links have a viscosity range up to 2000 mPa.s
- 2.8. All U-links have a LCD display
- 2.9. All U-links have a operating temperature of 14 °F to 122 °F (-10 °C to 50 °C)
- 2.10. All U-links will use battery type 4 x AA Alkaline 1.5V
- 2.11. All U-links will weigh 4.6 lb (1.2 kg)

Materials

The wetted materials will consist of Aluminum, Buna-N™, Zinc plated steel, AISI 316 stainless steel, Brass, Delrin

Warranty

- 4.1. All U-links 1-year standard warranty on defects in materials and workmanship only.

Fluid Inventory Control

Nex-U® U-valve & U-valve+

U-valve is a compact unit combining a high accuracy pulse meter, a solenoid valve and a large cleanable fluid screen filter with an electronic module. This module is required to control the meter and valve operation and to communicate with other system components.



Features

- Reduces installation time and eliminates the risk of leaks when using separate components
- It has a large, high visibility LED display which shows the U-valve number assigned in the system and the U-valve operation
- Four different LED lights that show the U-valve operation for diagnosis and two buttons for system configuration
- U-valve supports CAN BUS cable communication that transmits data and the electric power required to open the solenoid valve and Bluetooth® connection to a U-vision or a U-vision+ fluid handle with display
- U-valve+ includes Wi-Fi® communications for data transmission to other system components

COMPONENT TECHNICAL DATA

Function	- Controls on/off function - Dispense flow controls and monitors - Communicates data to U-net system
Requirements & Limitations	Requires U-power/U-power+ or U-dat/U-dat power+ power supply units
Power	U-valve and U-valve+ require 24 V DC supplied by a U-dat or a U-power module
Service Bulletin	SB 3802

MODELS AVAILABLE

3110-115	U-valve meter, solenoid valve and electronic module. Includes Bluetooth® communication for connecting to a U-vision or U-vision+
3110-114	U-valve+ meter, solenoid valve and electronic module. Includes Bluetooth® connection to a U-vision or U-vision+ and Wi-Fi® for data transmission to other components in the system

PRODUCT SPECIFICATIONS

Wetted parts	Aluminum, NBR, stainless steel, acetal
Applications	Lubricants, antifreeze solutions * If fluid additives are used, it is recommended to install stainless steel pulse meter and stainless steel solenoid valve
Connection threads	1/2" NPT(F)
Flow range	1-32 qt/min (1-30 l/min)
Pulses per quart	310 ppq (328 ppl)
Accuracy	+/- 0.5 %
Maximum working pressure	1,450 psi (100 bar)
Solenoid valve	24 V DC
Communication	CAN BUS, Bluetooth®, Wi-Fi® (U-valve+ only)

Fluid Inventory Control

Nex-U.® U-valve & U-valve+

U-valve & U-valve+ Description

- 1.1. Reduces installation time and eliminates the risk of leaks when using separate components
- 1.2. It has a large, high visibility LED display which shows the U-valve number assigned in the system and the U-valve operation
- 1.3. Four different LED lights that show the U-valve operation for diagnosis and two buttons for system configuration
- 1.4. U-valve supports CAN BUS cable communication that transmits data and the electric power required to open the solenoid valve and Bluetooth® connection to a U-vision or a U-vision+ fluid handle with display
- 1.5. U-valve+ includes Wi-Fi® communications for data transmission to other system components

U-valve & U-valve+ Specifications:

Component Technical Data

- 2.1. All U-valves will have Controls on/off function, Dispense flow controls and monitors, and Communicates data to U-net system
- 2.2. All U-valves will require U-power/U-power+ or U-dat/U-dat power+ power supply units
- 2.3. All U-valves will require 24 V DC supplied by a U-dat or a U-power module

Product Specifications

- 2.4. All U-valves have connection threads of 1/2" NPT(F)
- 2.5. All U-valves have a inlets of 1/2" NPT(F)
- 2.6. All U-valves have a flow range of 1-32 qt/min (1-30 l/min)
- 2.7. All U-valves have a accuracy of +/- 0.5 %
- 2.8. All U-valves have a maximum working pressure of 1,450 psi (100 bar)
- 2.9. All U-valves have a 24 VDC solenoid valve

Materials

The wetted materials will consist of Aluminum, NBR, stainless steel, acetal

Warranty

- 4.1. All U-valve & U-valve+ will have 1-year standard warranty on defects in materials and workmanship only.

Fluid Inventory Control

Nex-U[®] U-meter & U-meter⁺

High accuracy, compact pulse meter including the electronic module required to control the meter and valve operation and to communicate with other system components through CAN BUS.



3110-118



3110-117

Features

- The meter has an LED display showing the U-meter number assigned in the system, four different LED lights that show the U-meter operation for diagnosis and two buttons for system configuration
- Equipped with fast connection in/out CAN BUS terminals
- Available in different materials and sizes to match different applications

NOTE: U-meter⁺ includes Bluetooth[®] connection to a U-vision or a U-vision⁺ module.

COMPONENT TECHNICAL DATA

Function	In-line meter
Requirements & Limitations	Requires U-power or U-power ⁺ power supply units. Order solenoid separately
Power	U-valve and U-valve ⁺ require 24 V DC supplied by a U-dat or a U-power module

MODELS AVAILABLE

3110-139	U-meter 1/2" NPT(F) Lube
3110-122	U-meter 3/4" NPT(F) Lube, diesel
3110-120	U-meter 1/2" BSPP DEF, WW, AF
3110-118	U-meter 1/2" BSPP DEF, WW, AF
3110-117	U-meter ⁺ 1/2" NPT(F) Lube
3110-123	U-meter ⁺ 3/4" NPT(F) Lube, diesel
3110-121	U-meter ⁺ 1/2" BSPP DEF, WW, AF
3110-119	U-meter ⁺ 1/2" BSPP DEF, WW, AF

Only for connection with U-dat, U-valve, or an adjacent U-meter. Requires a 24 V DC solenoid valve.

U-METER⁺, MODELS WITH BLUETOOTH PART NO.

U-METER PART NO.	3110-117	3110-123	3110-121	3110-119
Wetted Materials	Aluminum, NBR, stainless steel, acetal	Aluminum, NBR, stainless steel, acetal	PVC, Vectra [®] , stainless steel, Viton [®]	Stainless steel, Vectra [®] , Viton [®]
Applications	Lubricants	Lubricants, diesel	DEF, WW, AF	DEF, WW, AF
Connection threads	1/2" NTP(F)	3/4" NPSM(F)	1/2" BSPP	1/2" BSPP
Flow range	1 - 32 qt/min (1 - 30 l/min)	8.4 - 84.4 qt/min (8 - 80 l/min)	1 - 52.8 qt/min (1 - 50 l/min)	1 - 52.8 qt/min (1 - 50 l/min)
Pulses per quart	310 ppq (328 ppl)	103 ppq (109 ppl)	303 ppq (320 ppl)	303 ppq (320 ppl)
Accuracy	+/- 0.5 %	+/- 0.5 %	+/- 0.5 %	+/- 0.5 %
Max working PSI	1,450 psi (100 bar)	1,450 psi (100 bar)	1,450 psi (100 bar)	1,450 psi (100 bar)
Communications	CAN BUS	CAN BUS	CAN BUS	CAN BUS
Service Bulletin	SB 3801	SB 3810	SB 3801	SB 3808

U-METER SOLENOID KITS

	3110-125	3110-126	3110-127	3110-128	3110-130	3110-131
Applications	Lubricants, AF	Lubricants, AF	High delivery lubricants & AF solutions	High delivery lubricants & AF solutions	DEF and WW (LP)	DEF and WW (LP)
Connection threads	1/2" NPT(F)	1/2" NPT(F)	3/4" NPT(F)	3/4" NPT(F)	1/2" BSPP(F)	1/2" BSPP(F)
Pulse meter	3110-139 U-meter	3110-117 U-meter ⁺	3110-122 U-meter	3110-123 U-meter ⁺	3110-120 U-meter	3110-121 U-meter ⁺
Solenoid valve	3120-217	3120-217	3120-218	3120-218	3120-226	3120-226
Y-strainer	3120-211	3120-211	3120-212	3120-212	3120-211	3120-211

U-meter & U-meter⁺ Description

- 1.1. Reduces installation time and eliminates the risk of leaks when using separate components
- 1.2. It has a large, high visibility LED display which shows the U-valve number assigned in the system and the U-valve operation
- 1.3. Four different LED lights that show the U-valve operation for diagnosis and two buttons for system configuration
- 1.4. U-valve supports CAN BUS cable communication that transmits data and the electric power required to open the solenoid valve and Bluetooth[®] connection to a U-vision or a U-vision⁺ fluid handle with display
- 1.5. U-valve⁺ includes Wi-Fi[®] communications for data transmission to other system components

U-meter & U-meter⁺ Specifications:

Component Technical Data

- 2.1. All U-meter & U-meter⁺ will function as a In-line meter
- 2.2. All U-meter & U-meter⁺ will require U-power or U-power⁺ power supply units. Order solenoid separately
- 2.3. All U-meter & U-meter⁺ will require 24 V DC supplied by a U-dat or a U-power module

Product Specifications

- 2.4. 3110-117, 3110-139 will have connection threads of 1/2" NPT(F)
- 2.5. 3110-117, 3110-139 will have a flow range of 1 - 32 qt/min (1 - 30 l/min)
- 2.6. 3110-117, 3110-139 will have 310 ppq (328 ppl), pulses per quart
- 2.7. 3110-117, 3110-139 will have a accuracy of +/- 0.5 %
- 2.8. 3110-123, 3110-122 will have connection threads of 3/4" NPSM(F)
- 2.9. 3110-123, 3110-122 will have a flow range of 8.4 - 84.4 qt/min (8 - 80 l/min)
- 2.10. 3110-123, 3110-122 will have 103 ppq (109 ppl), pulses per quart
- 2.11. 3110-123, 3110-122 will have a accuracy of +/- 0.5 %
- 2.12. 3110-121, 3110-120 will have connection threads of 1/2" BSPP
- 2.13. 3110-121, 3110-120 will have a flow range of 1 - 52.8 qt/min (1 - 50 l/min)
- 2.14. 3110-121, 3110-120 will have 303 ppq (320 ppl), pulses per quart
- 2.15. 3110-121, 3110-120 will have a accuracy of +/- 0.5 %
- 2.16. 3110-119, 3110-118 will have connection threads of 1/2" BSPP
- 2.17. 3110-119, 3110-118 will have a flow range of 1 - 52.8 qt/min (1 - 50 l/min)
- 2.18. 3110-119, 3110-118 will have 303 ppq (320 ppl), pulses per quart
- 2.19. 3110-119, 3110-118 will have a accuracy of +/- 0.5 %
- 2.20. All U-meter & U-meter⁺ will have a maximum working pressure of 1,450 psi (100 bar)

Materials

The wetted materials will consist of:

- 3.1. 3110-117, 3110-139 - Aluminum, NBR, stainless steel, acetal
- 3.2. 3110-123, 3110-122 - Aluminum, NBR, stainless steel, acetal
- 3.3. 3110-121, 3110-120 - PVC, Vectra[®], stainless steel, Viton[®]
- 3.4. 3110-119, 3110-118 - Stainless steel, Vectra[®], Viton[®]

Warranty

- 4.1. All U-meter & U-meter⁺ will have 1-year standard warranty on defects in materials and workmanship only.

Fluid Inventory Control

Nex-U® U-count & U-view

U-count fluid control module includes a high visibility LED display and the software required to function with the rest of the NEX-U® system components.



3110-135

U-COUNT	3110-135
Description	Fluid meter and solenoid valve controller includes Bluetooth®, CAN BUS communications.
Service Bulletin	SB 3805

U-count

The U-count allows the use of external solenoid/meter combination to control almost any fluid:

- DEF
- Highflow Oil
- Grease
- WW Fluid
- Anti-freeze



3110-134

U-VIEW	3110-134
Description	U-view remote display module
Service Bulletin	SB 3804

U-view

U-view requires hard-wired connection (data and power) to a U-dat keypad or to a 110 - 240 V AC power supply using a 24 V DC external transformer (U-power or U-power+).

Features

U-count fluid control module includes a high visibility LED display and the software required to function with the rest of the NEX-U® system components.

The LED display shows the number assigned in the system and four different LED lights show the operation of the valve for diagnosis and two buttons for system configuration. U-count supports CAN BUS hard-wired communication that transmits data and power required to open the solenoid valve, for data communication with other system components and Bluetooth® to communicate with a U-vision or U-vision+ handle.

MODELS AVAILABLE	
3110-135	U-count meter, solenoid, bluetooth

Features

U-view has remote, high visibility, LED display that shows the volume delivered through various U-valves (no simultaneous operation supported). U-view supports Wi-Fi® and hardwired communication.

MODELS AVAILABLE	
3110-134	U-view remote display module

U-count Description

U-count fluid control module includes a high visibility LED display and the software required to function with the rest of the NEX-U® system components.

The LED display shows the number assigned in the system and four different LED lights show the operation of the valve for diagnosis and two buttons for system configuration. U-count supports CAN BUS hard-wired communication that transmits data and power required to open the solenoid valve, for data communication with other system components and Bluetooth® to communicate with a U-vision or U-vision+ handle.

U-count Specifications:

- 2.1. The U-count allows the use of external solenoid/meter combination to control almost any fluid: DEF, Highflow Oil, Grease, WW Fluid, Anti-freeze

Warranty

- 4.1. U-count will have 1-year standard warranty on defects in materials and workmanship only.

U-view Description

U-view has remote, high visibility, LED display that shows the volume delivered through various U-valves (no simultaneous operation supported). U-view supports Wi-Fi® and hardwired communication.

U-view Specifications:

- 2.1. U-view requires hard-wired connection (data and power) to a U-dat keypad or to a 110 - 240 V AC power supply using a 24 V DC external transformer (U-power or U-power+).

Warranty

- 4.1. U-view will have 1-year standard warranty on defects in materials and workmanship only.

Fluid Inventory Control

NEX-U® Compact

NEX-U® also offers solutions for smaller workshops where web-based software is not needed. NEX-U® Compact is a simple system based on a special U-dat keypad that is able to control a maximum of 8 dispensing points.



Features

The Keypad includes a 7" colored screen and a simplified version of the U-track software. The software included provides workshops with:

- Full control of bulk stored fluid usage.
- Inventory control using declining balance method. NEX-U® Compact will give a warning signal once a certain inventory is reached, and restricts access to those outlets that have run out of inventory.
- Ability to generate full reports in CSV format that can provide useful management information.

NEX-U® Compact 75.
With a 75 W transformer for opening up to 2 solenoid valves and dispensing 2 fluids

NEX-U® Compact 320.
With a 320 W transformer for opening up to 8 solenoid valves and dispensing 8 fluids

Power cord not included, use 3130-001.

NEX-U® Compact does not support working within a network or PC connection.

NEX-U® COMPACT	3110-101 & 3110-103
Description	NEX-U® Compact keypad
Service Bulletin	SB 3806

MODELS AVAILABLE	
3110-101	NEX-U® Compact 75
3110-103	NEX-U® Compact 320.



Mounting requires Vesa Bracket

Compact Description

- 1.1. The Keypad includes a 7" colored screen and a simplified version of the U-track software. The software included provides workshops with:
 - Full control of bulk stored fluid usage.
 - Inventory control using declining balance method. NEX·U·® Compact will give a warning signal once certain inventory is reached, and restricts access to those outlets that have run out of inventory.
 - Ability to generate full reports in CSV format that can provide useful management information.
- 1.2. NEX·U·® Compact 75 - With a 75 W transformer for opening up to 2 solenoid valves and dispensing 2 fluids.
- 1.3. NEX·U·® Compact 320 - With a 320 W transformer for opening up to 8 solenoid valves and dispensing 8 fluids.

Warranty

- 3.1. The Compact components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Fluid Inventory Control NEX-U® Mobile

NEX-U® Mobile allows fluid inventory and usage control in mobile service trucks. NEX-U® Mobile is a special U-dat keypad module, which includes the software required for an autonomous operation, can control up to maximum of 8 fluid outlets. Completed transactions can be saved to a USB memory stick in an Excel format.



Features

NEX-U® MOBILE can work with any NEX-U® fluid meter: U-valve; U-meter or U-meter+ with 24 V DC solenoid valve and filter.

Standard U-count and U-pulser solenoid valve are compatible with NEX-U® Mobile as long as they are connected to a 24 V DC solenoid valve.

NEX-U® Mobile Keypad
24 V DC keypad or opening up to 8 solenoid valves and dispensing 8 fluids

NEX-U® MOBILE	3110-102
Description	NEX-U- Mobile keypad 24 V DC
Service Bulletin	SB 3806

MODEL AVAILABLE	
3110-102	NEX-U- Mobile keypad



Mounting requires Vesa Bracket

Mobile Description

- 1.1. NEX·U·® MOBILE can work with any NEX·U·® fluid meter: U·valve; U·meter or U·meter+ with 24 V DC solenoid valve and filter.
- 1.2. Standard U·count and U·pulser solenoid valve are compatible with NEX·U·® Mobile as long as they are connected to a 24 V DC solenoid valve.
- 1.3. NEX·U·® Mobile Keypad 24 V DC keypad or opening up to 8 solenoid valves and dispensing 8 fluids

Warranty

- 3.1. The Mobile components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Fluid Inventory Control

Nex-U® U-pulser

U-pulser high accuracy in-line pulse meter.

Features

U-pulser high accuracy in-line pulse meter.
Equipped with connection terminal and valve open indication light.

This meter does not have a display or function buttons and requires a 24 V DC solenoid valve.

Only for connection to a U-count module.



U-PULSER METER	3120-114	3120-014	3120-013	3120-227	3120-228
Wetted Materials	Aluminum, NBR, stainless steel, acetal	Aluminum, NBR, stainless steel, acetal	PVC, Vectra®, stainless steel, Viton®	Stainless steel, Vectra®, Viton®	Aluminum, acetal, NBR, Stainless steel
Applications	Lubricants	Oil, diesel	DEF, WW and AF solutions	DEF, WW and AF solutions	Oil, diesel
Connection threads	1/2" NPT(F)	3/4" NPSM(F)	1/2" BSPP	1/2" BSPP	1" NPT(F)
Flow range	1-32 qt/min (1-30 l/min)	8.4-84.4 qt/min (8-80 l/min)	1-52.8 qt/min (1-50 l/min)	1 - 52.8 qt/min (1 - 50 l/min)	10.4-84.4 qt/min (10-80 l/min)
Pulses per quart	310 ppq (328 ppl)	104 ppq (110 ppl)	303 ppq (320 ppl)	303 ppq (320 ppl)	104 ppq (110 ppl)
Accuracy	+/- 0.5 %	+/- 0.5 %	+/- 0.5 %	+/- 0.5 %	+/- 0.5%
Max working PSI	1,450 psi (100 bar)	1,450 psi (100 bar)	435 psi (30 bar)	1,450 psi (100 bar)	1,450 psi (100 bar)
Service Bulletin	SB 3099	SB 3108	SB 3107	SB 3811	SB 3812

MODELS AVAILABLE	
3120-114	U-pulser 1/2" NPT(F) Lube, AF
3120-014	U-pulser 3/4" NPT(F) Oil, glycol, coolant solutions, diesel
3120-013	U-pulser 1/2" BSPP DEF, WW, AF
3120-227	U-pulser 1/2" BSPP DEF, WW, AF
3120-228	U-pulser 1" NPT(F) DEF, WW, AF

U-pulser Description

U-pulser high accuracy in-line pulse meter. Equipped with connection terminal and valve open indication light.

This meter does not have a display or function buttons and requires a 24 V DC solenoid valve.

U-pulser Specifications:

Product Specifications

- 2.4. 3120-114 will have connection threads of 1/2" NPT(F)
- 2.5. 3120-114 will have a flow range of 1 - 32 qt/min (1 - 30 l/min)
- 2.6. 3120-114 will have 310 ppq (328 ppl), pulses per quart
- 2.4. 3120-114 will have a max working psi of 1,450 psi (100 bar)

- 2.4. 3120-014 will have connection threads of 3/4" NPSM(F)
- 2.5. 3120-014 will have a flow range of 8.4-84.4 qt/min (8-80 l/min)
- 2.6. 3120-014 will have 104 ppq (110 ppl), pulses per quart
- 2.4. 3120-014 will have a max working psi of 1,450 psi (100 bar)

- 2.4. 3120-013 will have connection threads of 1/2" BSPP
- 2.5. 3120-013 will have a flow range of 1-52.8 qt/min (1-50 l/min)
- 2.6. 3120-013 will have 303 ppq (320 ppl), pulses per quart
- 2.4. 3120-013 will have a max working psi of 435 psi (30 bar)

- 2.4. 3120-227 will have connection threads of 1/2" BSPP
- 2.5. 3120-227 will have a flow range of 1 - 52.8 qt/min (1 - 50 l/min)
- 2.6. 3120-227 will have 303 ppq (320 ppl), pulses per quart
- 2.4. 3120-227 will have a max working psi of 1,450 psi (100 bar)

- 2.4. 3120-228 will have connection threads of 1" NPT(F)
- 2.5. 3120-228 will have a flow range of 10.4-84.4 qt/min (10-80 l/min)
- 2.6. 3120-228 will have 104 ppq (110 ppl), pulses per quart
- 2.4. 3120-228 will have a max working psi of 1,450 psi (100 bar)

- 2.20. All U-pulsers will have a accuracy of +/- 0.5 %

Materials

The wetted materials will consist of:

- 3.1. 3120-114, 3120-014, 3120-228 - Aluminum, NBR, stainless steel, acetal
- 3.2. 3120-013 - PVC, Vectra®, stainless steel, Viton®
- 3.3. 3120-227 - Stainless steel, Vectra®, Viton®

Warranty

- 4.1. All U-pulsers will have 1-year standard warranty on defects in materials and workmanship only.

Fluid Inventory Control

Nex-U® U-tank

Provides real-time inventory control, reducing concerns about running out of inventory or used fluid tanks overflow.



Features

U-tank is a monitor module capable of controlling two tanks using digital or analog level gauges. Can be connected to solenoid valves to control pump operation, and to external warning devices.

U-tank has two independent graphic displays and level bars, where the inventory available in each tank can be checked. It also has a set-up keypad for inventory adjustment if required⁽¹⁾.

See pg. 139 for probes and alarm

Power cord not included, use 3130-001.

COMPONENT TECHNICAL DATA	
Function	Monitor tank fluid levels
Requirements	- Requires 110 V
Power	110 -240 V AC supply
Service Bulletin	SB 3807

MODEL AVAILABLE	
3110-105	U-tank tank monitoring module. Can control up to two tanks. Supports CAN BUS communications. 110 - 240 V

The number of input and output ports are:

- One analog input per tank for a pressure probe with 4-20 mA or 0-10V
- Three digital inputs per tank for a low, intermediate or high-level probe ⁽¹⁾
- One output per tank for a solenoid valve to control air supply to each pump
- One output per tank for an electro-pneumatic valve to prevent tank overflow
- One output for controlling an air solenoid valve to stop the air supply to all pumps when the workshop is closed
- One output per tank for controlling a flash warning light or an acoustic alarm

U-tank supports CAN BUS wired communication with other NEX-U® system components plus Wi-Fi® with optional CAN BUS to Wi-Fi® converter.

(1) The use of digital probes does not allow real-time inventory monitoring. NEX-U® will use declining balance for inventory control and will require manual inventory adjustment when fluid is supplied to the tank.

Only for connection with U-dat, U-valve, or an adjacent U-meter.
Requires a 24 V DC solenoid valve.

FIC

Fluid Inventory Control

Nex-U.® U-tank

U-tank Description

- 1.1. U-tank is a monitor module capable of controlling two tanks using digital or analog level gauges. Can be connected to solenoid valves to control pump operation, and to external warning devices.
- 1.2. U-tank has two independent graphic displays and level bars, where the inventory available in each tank can be checked. It also has a set-up keypad for inventory adjustment if required(1).

U-tank Specifications:

- 2.1. All U-tank monitor modules monitor tank fluid levels
- 2.2. All U-tank monitor modules will require 110 V
- 2.3. All U-tank monitor modules will require 110 - 240 V AC supply

Warranty

- 3.1. The U-tank components will have a 1-year replacement only warranty (defects in materials and workmanship only).

Features

TM Control

Standalone tank controller with 4 channels capable of controlling up to 4 different tanks or fluids. Each channel can connect to a solenoid valve, remote alarm or strobe light.

The TM Control can be used as a high or low-level control to prevent overflow, or as a pump shutoff to prevent the pump from running dry, and allowing air to enter the system.

Main Features

- Controls up to four channels. Each channel can be assigned to a different tank, or multiple channels can be assigned to a single tank
- Each channel controls solenoid valves, relays, external alarms, etc.
- This unit can be a standalone unit; no need to connect to auxiliary software or systems
- TM Control works with tank alert strobe light and alarm 3120-029
- One button for setup, resetting alarms, and system test
- Use the key switch for bypass mode control, setup access, or rebooting the system
- Status LEDs: yellow indicates bypass mode and white on indicates system status; on
- Input LED for each channel; red blinking LED indicates level warning
- Outputs can be configured to "normally-open" or "normally closed"



MODEL AVAILABLE

3110-033	TM Control
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TECHNICAL DATA


Function	Stand alone tank controller
Requirements & Limitations	4 tanks or 4 fluids
Power	Input - 110-230 V AC Required Voltage - 110/60 Hz 240/50 Hz V AC Standard 18 AWG for installation

RECOMMENDED ACCESSORIES

	MODELS	DESCRIPTION	COMPONENT TECHNICAL DATA
	3120-029	Tank alert strobe alarm	Power: 24 V DC
	3120-033	Air Solenoid Valve - Normally Closed	Air Solenoid Provides for the remote shutdown of pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 3/8" NPT (F/F) Power: 24 V DC
	3120-225	Air Solenoid Valve - Normally Open	Air Solenoid Provides for the remote shutdown of pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 1/2" NPT (F/F) Power: 24 V DC

TANK SENSORS

Tank sensors (switches provide low level/high level responses, depending on model)

 3120-092	3120-092	1 Level Sensor, Switch, Single Probe, 5.6 ft. with 33 ft. cable
	3120-093	2 Level Sensor, Switch, Double Probe, 3 ft. & 5.5 ft. with 33 ft. cable
	3120-094	1 Level Sensor, Switch, Flex Adjustable Single Probe, 16 ft. cable

Fluid Inventory Control TM Control

Description:

- 1.1. Controls up to four channels. Each channel can be assigned to a different tank, or multiple channels can be assigned to a single tank
- 1.2. Each channel controls solenoid valves, relays, external alarms, etc.
- 1.3. This unit can be a standalone unit; no need to connect to auxiliary software or systems
- 1.4. TM Control works with Tank alert strobe light and alarm 3120-029
- 1.5. One button for setup, resetting alarms, and system test
- 1.6. Use the key switch for bypass mode control, setup access, or rebooting the system
- 1.7. Status LEDs: yellow indicates bypass mode and white on indicates system status; on
- 1.8. Input LED for each channel; red blinking LED indicates level warning
- 1.9. Outputs can be configured to "normally-open" or "normally closed"

Specifications

- 2.1. The TM Control will control tank monitoring
- 2.2. The TM Control will monitor up to four tanks or four fluids per module
- 2.3. The TM Control will be used as a stand-alone tank controller
- 2.4. The TM Control will have an input power of 110 V AC, requiring voltage of 110/60 Hz 240/50 Hz V AC

Warranty

- 3.1. All TM Control components will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).

Fluid Inventory Control Pump Sentinel

Features

Pump Sentinel

- Prevents theft by disabling up to six pumps
- Safety shut-off at the end of the day; in case of component failure that could result in leaks and spills
- Master key needed to turn system on
- Includes a six-foot wiring harness
- Small Console footprint:
6.5" L x 5" W x 3" H

Prevents fluid spills during non-working hours by using a built-in timer to turn off air supply to all pumps at a predetermined time each day.



PUMP SENTINEL TECHNICAL DATA

Function	Prevents fluid spills during non-working hours by using a built-in timer to turn off air supply to all pumps at a predetermined time each day.
Requirements & Limitations	No. 18 AWG wire is recommended for all runs less than 400 feet. For runs from 400 to 625 feet, use wire no. 16 AWG or larger. Normally the 24 VDC wiring can be run around the overhead structure of the building without using conduit.
Power	120 VAC, 60/50 Hz, 50 Watts-output 24 VAC
Control Capacity	6 products
Operating Temperature	0° - 140° F (-17° - 60° C)
Solenoid Rating	24 VDC, 5 Watts Max.
Dimensions	3" H x 6.5" W x 5" D
Cable Length	6 ft.
Service Bulletin	SB 3048

MODELS AVAILABLE

3110-009	Pump Sentinel Console
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RECOMMENDED ACCESSORIES

MODELS		DESCRIPTION	COMPONENT TECHNICAL DATA
	3120-033	Air Solenoid Valve - Normally Closed	Air Solenoid Provides for the remote shutdown of pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 3/8" NPT (F/F) Power: 24 VDC
	3120-225	Air Solenoid Valve - Normally Open	Air Solenoid Provides for the remote shutdown of pumps from the fluid control console. Order one per controlled pump. Pressure: 200 PSI (12 bar) Connection: 1/2" NPT (F/F) Power: 24 VDC

Fluid Inventory Control Pump Sentinel

Pump Sentinel Description:

- 1.1. Prevents theft by disabling up to six pumps
- 1.2. Safety shut-off at the end of the day; in case of component failure that could result in leaks and spills
- 1.3. Master key needed to turn system on
- 1.4. Includes a six-foot wiring harness
- 1.5. Small Console footprint: 6.5" L x 5" W x 3" H

Prevents fluid spills during non-working hours by using a built-in timer to turn off air supply to all pumps at a predetermined time each day.

Pump Sentinel Specifications

- 2.1. The Pump Sentinel prevents fluid spills during non-working hours by using a built-in timer to turn off air supply to all pumps at a predetermined time each day.
- 2.2. The Pump Sentinel requires 120 VAC, 60/50 Hz, 50 Watts-output 24 VAC
- 2.3. The Pump Sentinel's control capacity is 6 products
- 2.4. The Pump Sentinel will have an operating temperature of 0° - 140° F (-17° - 60° C)
- 2.5. The Pump Sentinel will have an Solenoid rating of 24 VDC, 5 Watts Max.
- 2.6. The Pump Sentinel will have a dimension of 3" H x 6.5" W x 5" D
- 2.7. The Pump Sentinel will a cable length of 6ft.

Warranty

- 3.1. All Pump Sentinel components will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).

Closed Systems Drum Packages

Electric Diaphragm Pump

Features

- Compact design mounting bracket
- Heavy-duty cart - Easily holds and rolls up to 55 gallon drum
- Large semi-pneumatic tires - Allow for easy maneuvering of cart
- Large non-marking rear caster - Built in brake for safe and secure dispensing

Includes:

- 8570-006 6' x 3/4" Suction hose
- 8561-012 12' x 3/4" Discharge hose
- 4530-054 Drip tray
- 4320-014 Drum cart 55 gal for DEF
- 4530-065 Side mount bracket

Options:

- 3120-116 Meter DR style for DEF
- 1200-020 120 V AC Electric diaphragm pump
- 1200-021 12 V DC Electric diaphragm pump
- 3340-012 Auto nozzle, stainless steel
- 3340-015 Manual nozzle, polyethylene

Pump includes automatic shutoff.
Pump is UL approved

DEF Packages do not include coupler systems. Order Separately.

TECHNICAL DATA		
	DATA 120 V AC (1200-020)	DATA 12 V DC (1200-021)
Max. Free Flow	8.5 GPM	9.5 GPM
Working Pressure	23 psi (1.6 bar)	23 psi (1.6 bar)
Power	120 V AC	12 V DC
Wetted Materials (pump)	Stainless Steel, Viton®, PPE	Stainless Steel, Viton®, PPE
Service Bulletin	SB 1129	SB 1130

MODELS AVAILABLE	DESCRIPTION
1210-046P	120 V AC Non-metered, Manual Nozzle
1210-048P	120 V AC Non-metered, Auto Nozzle
1210-049P	120 V AC Metered, Auto Nozzle

CLOSED system containers have a valve coupling system that seals the container opening on drums and totes (IBC) to prevent dirt, debris, bugs, etc., from entering the container and contaminating the diesel exhaust fluid. Liquid in container system is sealed and secure, throughout container life cycle.

DEF Packages do not include coupler systems. Order Separately.

You must choose a coupler kit to create a complete system for your distribution needs.

for closed systems, use Reusable Poly Valve (RPV) or Reusable Stainless Valve (RSV) systems accessories. RSV and RPV components are interchangeable.

DEF

Closed Systems Drum Packages

Electric Diaphragm Pump

Electric Diaphragm Packages Description

Balcrank Diesel Exhaust Fluid products will include pumps and outfits that could be placed in dealerships, garages, and gas stations. The Balcrank true blue Diesel Exhaust Fluid Systems will offer dispense options for all types of facilities. DEF portable units will include portable drum cart, side mount bracket, self-priming electric diaphragm pump, hose, and dispense nozzle.

Electric Diaphragm Package Details

- 2.1. Electric diaphragm packages will have 8" diameter non-marking locking caster with a built-in break on rear of cart for safe and secure dispensing.
- 2.2. Electric diaphragm packages will have 12" diameter semi-pneumatic tires for easy maneuvering.
- 2.3. Electric diaphragm packages will have a heavy-duty cart, which easily holds and rolls a 55-gallon drum.
- 2.4. Electric diaphragm packages will have an 120V AC self-priming electric diaphragm pump.
- 2.5. Electric diaphragm packages will include: 6' suction hose, 12' dispense hose, Optional: Battery powered electronic meter with display, dispense nozzle options: auto nozzle-stainless Steel, and manual nozzle-polyethylene.

Electric Diaphragm Package Available:

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> 1210-046P | 120 V AC Non-metered, Manual Nozzle |
| <input type="checkbox"/> 1210-048P | 120 V AC Non-metered, Auto Nozzle |
| <input type="checkbox"/> 1210-049P | 120 V AC Metered, Auto Nozzle |

Electric Diaphragm Specifications:

- 4.1. **120V AC Self-Priming Electric Diaphragm pump**
 - 4.1.2. 120V AC Electric Diaphragm pump will have a maximum fluid pressure of 23 psi (1.6 bar)
 - 4.1.3. 120V AC Electric Diaphragm pump will have a flow rate of 8.5 gal/m (32 l)
 - 4.1.4. 120V AC Electric Diaphragm pump will have power outlet of 120V AC

Materials:

The wetted materials will consist of Stainless Steel, Viton, PPE

Warranty:

- 6.1. Portable Air Outfits will have a 1-year replacement only warranty (defects in materials and workmanship only).

Closed Systems Tote Packages

Electric Diaphragm Pump

Features

- Compact design mounting bracket

Includes

- 8570-006 6' x 3/4" Suction hose
- 8561-020 20' x 3/4" Discharge hose
- 4530-054 Drip tray
- 4530-065 Side mount bracket

Options

- 3120-116 Meter DR style for DEF
- 1200-020 120 V AC Electric diaphragm pump
- 1200-021 12 V DC Electric diaphragm pump
- 3340-012 Auto nozzle, stainless steel
- 3340-015 Manual nozzle, polyethylene

Pump includes automatic shutoff.
Pump is UL approved



DEF Packages do not include coupler systems. Order Separately.

TECHNICAL DATA		
	DATA 120 V AC (1200-020)	DATA 12 V DC (1200-021)
Max. Free Flow	8.5 gal/min (32.18 l/min)	9.5 gal/min (34.07 l/min)
Working Pressure	23 psi (1.6 bar)	23 psi (1.6 bar)
Power	120 V AC	12 V DC
Wetted Materials (pump)	Stainless Steel, Viton, PPE	Stainless Steel, Viton, PPE
Service Bulletin	SB 1129	SB 1130

MODELS AVAILABLE	DESCRIPTION
1210-046	120 V AC Non-metered, Manual Nozzle
1210-047	120 V AC Metered, Manual Nozzle
1210-048	120 V AC Non-metered, Auto Nozzle
1210-049	120 V AC Metered, Auto Nozzle
1210-050	12 V DC Non-metered, Manual Nozzle
1210-052	12 V DC Non-metered, Auto Nozzle
1210-053	12 V DC Metered, Auto Nozzle

CLOSED system containers have a valve coupling system that seals the container opening on drums and totes (IBC) to prevent dirt, debris, bugs, etc., from entering the container and contaminating the diesel exhaust fluid. Liquid in container system is sealed and secure, throughout container life cycle.

DEF Packages do not include coupler systems. Order Separately.

You must choose a coupler kit to create a complete system for your distribution needs.

for closed systems, use Reusable Poly Valve (RPV) or Reusable Stainless Valve (RSV) systems accessories. RSV and RPV components are interchangeable.

Closed Systems Tote Packages

Electric Diaphragm Pump

Electric Diaphragm Packages Description

Balcrank Diesel Exhaust Fluid products will include pumps and outfits that could be placed in dealerships, garages, and gas stations. The Balcrank true blue Diesel Exhaust Fluid Systems will offer dispense options for all types of facilities. DEF tote packages will include side mount bracket, self-priming electric diaphragm pump, hose, and dispense nozzle.

Electric Diaphragm Package Details

- 2.1. Electric diaphragm packages will have an 120V AC Self-Priming Electric Diaphragm pump or 12V DC Self-Priming Electric Diaphragm pump.
- 2.5. Electric diaphragm packages will include: 6' suction hose, 20' dispense hose, Optional: Battery powered electronic meter with display, dispense nozzle options: auto nozzle-stainless Steel, and manual nozzle-polyethylene.

Electric Diaphragm Package Available:

- ☐ **1210-046** 120 V AC Non-metered, Manual Nozzle
- ☐ **1210-047** 120 V AC Metered, Manual Nozzle
- ☐ **1210-048** 120 V AC Non-metered, Auto Nozzle
- ☐ **1210-040** 120 V AC Metered, Auto Nozzle
- ☐ **1210-050** 12 V DC Non-metered, Manual Nozzle
- ☐ **1210-052** 12 V DC Non-metered, Auto Nozzle
- ☐ **1210-053** 12 V DC Metered, Auto Nozzle

Electric Diaphragm Specifications:

- 4.1. **120V AC Self-Priming Electric Diaphragm pump**
 - 4.1.2. 120V AC Electric Diaphragm pump will have a maximum fluid pressure of 23 psi (1.6bar)
 - 4.1.3. 120V AC Electric Diaphragm pump will have a flow rate of 8.5 gal/m (32.18 l)
 - 4.1.4. 120V AC Electric Diaphragm pump will have power outlet of 120V AC
- 4.2. **12V DC Self-Priming Electric Diaphragm pump**
 - 4.1.2. 12V DC Electric Diaphragm pump will have a maximum fluid pressure of 23 psi (1.6 bar)
 - 4.1.3. 12V DC Electric Diaphragm pump will have a flow rate of 9.5 gal/m (34.07 l)
 - 4.1.4. 12V DC Electric Diaphragm pump will have power outlet of 12V DC

Materials:

The wetted materials will consist of

- 5.1. 120V AC Stainless Steel, Viton, PPE
- 5.2. 12V DC Stainless Steel, Viton, PPE

Warranty:

- 6.1. Self-Priming Electric Diaphragm Outfits will have a 1-year replacement only warranty (defects in materials and workmanship only).

Closed Systems Drum Packages

CF Diaphragm Pump

Features

- Compact design mounting bracket
- Heavy-duty cart - Easily holds and rolls up to 55 gallon drum
- Large semi-pneumatic tires - Allows for easy maneuvering of cart
- Large non-marking rear caster - Built in brake for safe and secure dispensing

Includes

- 1120-025A CF15 AODD Pump for DEF
- 8570-006 6' x 3/4" suction hose
- 8561-012 12' x 3/4" discharge hose
- 4530-054 Drip tray
- 4320-014 Drum cart 55 Gal for DEF
- 4530-065 Side mount bracket
- 3260-060 Filter Reg 1/4" auto drain, mini

Options

- 3120-116 Meter DR style for DEF
- 3340-012 Auto nozzle, stainless steel



DEF Packages do not include coupler systems. Order Separately.

TECHNICAL DATA

Air inlet	3/8" NPSM(F)
Fluid inlet port	1/2" BSPP(F) DEF
Fluid outlet port	1/2" BSPP(F) DEF
Max. Free Flow	14 gal/min (50 l/min)
Air pressure range	45-100 psi (3-7 bar)
Solids in suspension	1/8" (3 mm)
Wetted Materials	PTFE (Teflon [®]), Viton [®] , Polypropylene, Stainless Steel, Hytrel [®]
Recommended fluids	Diesel exhaust fluid
Recommended Applications	Fluid dispensing, transfer, evacuation and distribution systems
Service Bulletin	SB 1145

MODELS AVAILABLE

DESCRIPTION

1210-054P

CF15 Non-metered, Manual Nozzle

1210-056P

CF15 Non-metered, Auto Nozzle

1210-057P

CF15 Metered, Auto Nozzle

CLOSED system containers have a valve coupling system that seals the container opening on drums and totes (IBC) to prevent dirt, debris, bugs, etc., from entering the container and contaminating the diesel exhaust fluid. Liquid in container system is sealed and secure, throughout container life cycle.

Note: Pump packages include all hoses and adapters required for connecting a DEF pump to the air supply and DEF dispense line.

DEF Packages do not include coupler systems.

You must choose a coupler kit to create a complete system for your fluid distribution needs.

for closed systems, use Reusable Poly Valve (RPV) or Reusable Stainless Valve (RSV) systems accessories. RSV and RPV components are interchangeable.

Portable Air Outfits Description

Balcrank Diesel Exhaust Fluid products will include pumps and outfits that could be placed in dealerships, garages, and gas stations. The Balcrank true blue Diesel Exhaust Fluid Systems will offer dispense options for all types of facilities. DEF portable air units will include portable drum cart, AODD pump, hose, and dispense nozzle.

Portable Air Outfits Details

- 2.1. Portable Air Outfits will have 8" diameter non-marking locking caster with a built-in break on rear of cart for safe and secure dispensing.
- 2.2. Portable Air Outfits will have 12" diameter semi-pneumatic tires for easy maneuvering.
- 2.3. Portable Air Outfits will have a heavy-duty cart, which easily holds and rolls a 55-gallon drum.
- 2.4. Portable Air Outfits will have an AODD 1/2" Poly pump.
- 2.5. Portable Air Outfits will be assembled and ready for use out of the box.
- 2.6. Portable Air Outfits Closed or Open coupler systems are NOT included in outfit – customer orders separately depending on fluid container requirements.

Portable Air Outfits Available:

- ☐ **1210-054P** CF15 Non-metered, Manual Nozzle
- ☐ **1210-056P** CF15 Non-metered, Auto Nozzle
- ☐ **1210-057P** CF15 Metered, Auto Nozzle

Portable Air Outfits Specifications:

- 4.1. Portable Air Outfits will have a fluid inlet port of 1/2" BSPP (F)
- 4.2. Portable Air Outfits will have a fluid outlet port of 1/2" BSPP (F)
- 4.3. Portable Air Outfits will have an air inlet port of 3/8" BSPP (F)
- 4.4. Portable Air Outfits will have a free flow rate of 14 gal/min (50 l/min)
- 4.5. Portable Air Outfits will have an operating air pressure of 45-100 psi (3-7 bar)

Materials:

- 5.1. The wetted materials will consist of PTFE (Teflon®), Viton®, Polypropylene, Stainless Steel, Hytrel®

Warranty:

- 6.1. Portable Air Outfits will have a 1-year replacement only warranty (defects in materials and workmanship only)

Closed Systems Tote Packages

CF Diaphragm Pump

Features

- Compact design mounting bracket

Includes

- 1120-025A CF15 AODD Pump for DEF
- 8570-006 6' x 3/4" Suction hose
- 8561-020 20' x 3/4" Discharge hose
- 4530-054 Drip tray
- 4530-065 Side mount bracket
- 3260-060 Reg 1/4" auto drain, mini

Options

- 3120-116 Meter DR style for DEF
- 3340-018 Manual nozzle, polyethylene- BSPP

Pump includes automatic shutoff.
Pump is UL approved



DEF Packages do not include coupler systems. Order Separately.

TECHNICAL DATA	
Air inlet	3/8" NPSM(F)
Fluid inlet port	1/2" BSPP(F) DEF
Fluid outlet port	1/2" BSPP(F) DEF
Max. Free Flow	14 gal/min (50 l/min)
Air pressure range	45-100 psi (3-7 bar)
Solids in suspension	1/8" (3 mm)
Wetted Materials	PTFE (Teflon) [®] , Viton [®] , Polypropylene, Stainless Steel, Hytrel [®]
Recommended fluids	Diesel exhaust fluid
Recommended Applications	Fluid dispensing, transfer, evacuation and distribution systems
Service Bulletin	SB 1145

MODELS AVAILABLE	DESCRIPTION
1210-054	CF15 Non-metered, Manual Nozzle
1210-056	CF15 Non-metered, Auto Nozzle
1210-057	CF15 Metered, Auto Nozzle

CLOSED system containers have a valve coupling system that seals the container opening on drums and totes (IBC) to prevent dirt, debris, bugs, etc., from entering the container and contaminating the diesel exhaust fluid. Liquid in container system is sealed and secure, throughout container life cycle.

Note: Pump packages include all hoses and adapters required for connecting a DEF pump to the air supply and DEF dispense line.

DEF Packages do not include coupler systems.

You must choose a coupler kit to create a complete system for your fluid distribution needs.

for closed systems, use Reusable Poly Valve (RPV) or Reusable Stainless Valve (RSV) systems accessories. RSV and RPV components are interchangeable.

Closed Systems Tote Packages

CF Diaphragm Pump

Tote Air Outfits Description

Balcrank Diesel Exhaust Fluid products will include pumps and outfits that could be placed in dealerships, garages, and gas stations. The Balcrank true blue Diesel Exhaust Fluid Systems will offer dispense options for all types of facilities. DEF tote air units will include AODD pump, hose, and dispense nozzle.

Tote Air Outfits Details

- 2.1. Tote Air Outfits will have an AODD 1/2" Poly pump.
- 2.2. Tote Air Outfits will be assembled and ready for use out of the box.
- 2.3. Tote Air Outfits Closed or Open coupler systems are NOT included in outfit – customer orders separately depending on fluid container requirements.

Tote Air Outfits Available:

- ☐ **1210-054** CF15 Non-metered, Manual Nozzle
- ☐ **1210-056** CF15 Non-metered, Auto Nozzle
- ☐ **1210-057** CF15 Metered, Auto Nozzle

Tote Air Outfits Specifications:

- 4.1. Tote Air Outfits will have a fluid inlet port of 1/2" BSPP (F)
- 4.2. Tote Air Outfits will have a fluid outlet port of 1/2" BSPP (F)
- 4.3. Tote Air Outfits will have an air inlet port of 3/8" BSPP (F)
- 4.4. Tote Air Outfits will have a free flow rate of 14 gal/m (50 l/min)
- 4.5. Tote Air Outfits will have an operating air pressure of 45-100 psi (3-7 bar)

Materials:

- 5.1. The wetted materials will consist of PTFE (Teflon®), Viton®, Polypropylene, Stainless Steel, Hytrel®

Warranty:

- 6.1. Tote Air Outfits will have a 1-year replacement only warranty (defects in materials and workmanship only)

Used Fluid Equipment

Roughneck II™

The Roughneck II™ drain captures used fluids and transfers them to any bulk storage tank. The unit uses regular shop air and can be pressurized to allow for self-evacuating.



Features

- Patented automatic fluid evacuation valve eliminates gravity draining, pouring, or the need for an evacuation pump, **made in the USA**
 - 23 gallon storage tank; fewer drain intervals
 - A low pressure safety valve prevents over pressurization of tank.
 - Clear evacuation hose; provides fast fluid evacuation and shows fluid levels in tank.
- Includes:**
- 19.25" diameter catch basin that features an inlet strainer and s-hooks for tools
 - Splashguard bowl design prevents splattering, speeds drainage
 - Fully adjustable bowl height from 45" to 72"
 - One hand operation. No ball valves required for evacuation of fluid
 - Roughneck outlet tube mounts securely into bulk used fluid reservoir
 - 7' evacuation tube provides sight gauge for fluid level
 - Tank handle makes maneuvering easy.
 - Heavy gauge, all-steel construction guarantees long life
 - Tip-resistant balanced design
 - Large diameter rear rubber wheels and non-marking wide front casters maneuver the toughest shop floors

TECHNICAL DATA

Air Pressure Operating Range	5-25 psi (.34-1.72 bar)
Tank Capacity	23 gal (87 l)
Telescoping Range	45"-72" (1.14-1.83 m)
Maximum Pressure	25 psi (1.72 bar)
Pressure Relief Valve	30 psi (2.07 bar)
Air Inlet Size (quick connect)	1/4" NPT
Fluid Outlet Nozzle	1" OD
Estimated Evacuation Time	3 - 4 min.
Wetted Materials	Zinc Plated Steel, Steel, Viton®, HDPE, and PVC
Service Bulletin	SB 4027

MODELS AVAILABLE	DESCRIPTION
4110-022	Roughneck II™ Used Oil Drain
4110-023	Roughneck II™ Used Anti-freeze Drain
4140-064	Replacement Drain Bowl

Used Fluid Equipment

Roughneck II™

Roughneck II™ Drain Description

The Balcrank Roughneck II™ Drain will capture used fluids and transfer to any bulk storage tank. Unit will use regular shop air and be pressurized to allow for self-evacuating.

Roughneck II™ Drain Details

- 2.1. The Balcrank Roughneck II™ drain will have an all Steel tank and base design made from heavy-gauge Steel, guaranteeing long life
- 2.2. The Balcrank Roughneck II™ drain will have patented one step-automatic fluid evacuation valve, which eliminates gravity draining, pouring, or the need for an evacuation pump.
- 2.3. The Balcrank Roughneck II™ drain will have a low-pressure safety valve to prevent over-pressurization.
- 2.4. The Balcrank Roughneck II™ drain will have 10" non-marking rubber wheels and 4" casters for easy maneuvering on any floor surface.
- 2.5. The Balcrank Roughneck II™ drainage bowl to be made from high strength poly to provide collapsible safety feature to assist in preventing tank failure when object is lowered onto drainage bowl. Drain will prevent splattering and include filter to keep debris from entering tank and speed drainage.
- 2.6. The Balcrank Roughneck II™ drain will have a 19.25" splashguard bowl design to prevent splattering and speeds drainage.
- 2.7. The Balcrank Roughneck II™ drain will have a tip resistant balanced design.
- 2.8. The Balcrank Roughneck II™ drain will be NFPA approved design.
- 2.9. The Balcrank Roughneck II™ drain will be powder coated for corrosion resistance with high quality powder coating. Drains are offered in black for used oil and green for used antifreeze.
- 2.10. The Balcrank Roughneck II™ drain will have a seven-foot evacuation tube that provides a built-in sight gauge for fluid level for fast and accurate viewing.

Self-Evacuating Drain Models Available

- ☐ **4110-022** Used oil
- ☐ **4110-023** Anti-freeze

Self-Evacuating Drain Specifications

- 4.1. Roughneck II™ drain will be 24" W x 45"H (72" H fully extended)
- 4.2. Roughneck II™ drain will have a bowl dimensions of 19.25" diameter
- 4.3. Roughneck II™ drain will have an operating air pressure of 5-25 psi (.34-1.72 bar)
- 4.4. Roughneck II™ drain will have a fluid outlet hose of 3/4" ID x 7' long
- 4.5. Roughneck II™ drain will have a fluid outlet nozzle of 1" OD
- 4.6. Roughneck II™ drain will have a pressure relief valve of 30 psi (2 bar)
- 4.7. Roughneck II™ drain will have a capacity of 23 gal (87 l)
- 4.8. Roughneck II™ drain will have a telescoping range of 47"-74" (1.14-1.83 m)
- 4.9. Roughneck II™ drain will have an estimated evacuation time of 3-4 minutes

Materials

- 5.1. The Balcrank Roughneck II™ drain wetted materials will consist Zinc plated Steel, Steel, Viton, HDPE, and PVC

Warranty

- 6.1. The Balcrank Roughneck II™ drain will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only)

Used Fluid Equipment Premium Duty

Premium drains capture used fluids and transfers them to any bulk storage tank using a cam-lock kit and evacuation system.



Features

- All steel tank and base design made from heavy gauge steel, guaranteeing long life, **made in the USA**
- Non-marking rubber wheels and 4" casters for easy maneuvering on any floor surface
- Drainage bowl made from high strength poly to provide collapsible safety feature
- Tip resistant balanced design
- Prevents splattering and includes strainer to keep debris from entering tank and speed drainage
- High quality powder coating for corrosion resistance. Drains are offered in black for used fluid and green for used Anti-freeze (Glycol)
- Used oil drains will come with a 1" cam-lock nipple and dust cap
- Used anti-freeze drains will come with a 3/4" cam-lock nipple and dust cap

TECHNICAL DATA

Tank Capacity	23 gal (87 l)
Telescoping Range	45" - 72" (1.14 - 1.83 m)
Air Inlet Size (quick connect)	1/4" NPT
Fluid Outlet	Used oil 1" cam-lock nipple Used anti-freeze 3/4" cam-lock nipple
Wetted Materials	Zinc Plated Steel, Steel, Viton®, HDPE, and PVC
Service Bulletin	SB 4226

MODELS AVAILABLE

DESCRIPTION

4110-024	Premium Duty Used Oil Drain
4110-025	Premium Duty Used Anti-freeze (Glycol) Drain

CAM-LOCK COUPLER & NIPPLE RATED FOR 250 PSI (17 BAR)

Cam-Lock Coupler & Nipple		4140-044 Coupler 3/4" NPT(F)
		4140-017 Coupler 1" NPT(F)
		4140-054 Nipple 3/4" NPT(F)
		4140-055 Nipple 1" NPT(F)
		4140-045 Nipple 3/4" NPT(M)
		4140-018 Nipple 1" NPT(M)
		4140-046 Dust Cap 3/4" NPT(F)
		4140-019 Dust Cap 1" NPT(F)
		4140-052 Dust Plug 3/4" NPT(M)
		4140-053 Dust Plug 1" NPT(M)

DRY BREAK COUPLER & NIPPLE RATED FOR VACUUM OR UP TO 3,000 PSI (207 BAR)

Dry Break Coupler & Nipple		4140-016 Coupler 3/4" NPT(F)
		4140-050 Coupler 1" NPT(F)
		4140-023 Nipple 3/4" NPT(F)
		4140-051 Nipple 1" NPT(F)
Drain Bowl		4140-064 Replacement Drain Bowl 1 1/4" NPT(F)

OLD STYLE DRAIN CONVERSION

Conversion of old style drains with dry break couplers use

for Used Oil	3270-054 Bushing 1" x 3/4"
	4140-018 Nipple 1" NPT(M)
for Anti-freeze	4140-045 Nipple 3/4" NPT(M)

Used Fluid Equipment

Premium Duty

Premium Duty Drain Description

The Balcrank Premium Drains will capture used fluids and transfer to any bulk storage tank using a quick coupler and evacuation system.

Premium Duty Drain Details

- 2.1. Drain will have an all Steel tank and base design made from heavy-gauge Steel, guaranteeing long life
- 2.2. Drain will have non-marking rubber wheels and 4" casters for easy maneuvering on any floor surface.
- 2.3. Drainage bowl to be made from high strength poly to provide collapsible safety feature to assist in preventing tank failure when object is lowered onto drainage bowl. Drain will prevent splattering and include filter to keep debris from entering tank and speed drainage.
- 2.4. Drain will have a tip resistant balanced design.
- 2.5. Drain will be NFPA approved design.
- 2.6. Drainage bowl to be made from high strength poly to provide collapsible safety feature to assist in preventing tank failure when object is lowered onto drainage bowl.
- 2.7. Drain will prevent splattering and include filter to keep debris from entering tank and speed drainage.
- 2.8. Drain will be powder coated for corrosion resistance with high quality powder coating. Drains are offered in black for used oil and green for used antifreeze.

Premium Duty Drain Models Available:

- | | |
|-----------------------------------|-------------|
| <input type="checkbox"/> 4110-024 | Used oil |
| <input type="checkbox"/> 4110-025 | Anti-freeze |

Premium Duty Drain Specifications:

- 4.1. Drain will be 24" W x 45"H (72" H fully extended)
- 4.2. Drain will have a capacity of 23 gal (87 l)
- 4.3. Drain will have a telescoping range of 45"-72" (1.14-1.83 m)
- 4.4. Drain will have fluid outlet of 3/4" NTP(M)

Materials:

- 5.1 The wetted materials will consist Zinc plated Steel, Steel, Viton, HDPE, and PVC

Warranty:

- 6.1 Drain will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only)

Used Fluid Equipment Spillguard

Spillguard drains capture used fluids and transfer to any bulk storage tank using a cam-lock kit and evacuation system

Features

- Balcrank "wide track" 4" caster dolly set for easy maneuvering on any floor surface
- All steel cover, container, and base design, **made in the USA**
- Drainage bowl made from high strength poly to provide collapsible safety feature and to assist in preventing container failure when an object is lowered onto drainage bowl
- Drain bowl prevents splattering and includes strainer to keep debris from entering container and speed drainage
- Tip resistant balanced design
- High quality powder coating for corrosion resistance. Drains are offered in black for used fluid and green for used Anti-freeze (Glycol)
- Used oil drains will come with a 1" cam-lock nipple and dust cap
- Used anti-freeze drains will come with a 3/4" cam-lock nipple and dust cap



TECHNICAL DATA

Tank Capacity	16 gal (60.5 l)
Telescoping Range	0-27 in. (0-69 m)
Air Inlet (quick connect)	1/4" NPT
Fluid Outlet	Used oil 1" cam-lock nipple Used anti-freeze 3/4" cam-lock nipple
Wetted Materials	Zinc Plated Steel, Steel, Viton®, HDPE, and PVC
Service Bulletin	SB 4225

MODELS AVAILABLE

DESCRIPTION

4110-026	Spillguard used oil drain
4110-027	Spillguard used oil drain drumless
4110-028	Spillguard used anti-freeze (Glycol) drain
4110-029	Spillguard used anti-freeze (Glycol) drain drumless

CAM-LOCK COUPLER & NIPPLE RATED FOR 250 PSI (17 BAR)

Cam-Lock Coupler & Nipple		4140-044 Coupler 3/4" NPT(F)
		4140-017 Coupler 1" NPT(F)
		4140-054 Nipple 3/4" NPT(F)
		4140-055 Nipple 1" NPT(F)
		4140-045 Nipple 3/4" NPT(M)
		4140-018 Nipple 1" NPT(M)
		4140-046 Dust Cap 3/4" NPT(F)
		4140-019 Dust Cap 1" NPT(F)
		4140-052 Dust Plug 3/4" NPT(M)
		4140-053 Dust Plug 1" NPT(M)

DRY BREAK COUPLER & NIPPLE RATED FOR VACUUM OR UP TO 3,000 PSI (207 BAR)

Dry Break Coupler & Nipple		4140-016 Coupler 3/4" NPT(F)
		4140-050 Coupler 1" NPT(F)
		4140-023 Nipple 3/4" NPT(F)
		4140-051 Nipple 1" NPT(F)
Drain Bowl		4140-064 Replacement Drain Bowl 1 1/4" NPT(F)

OLD STYLE DRAIN CONVERSION

Conversion of old style drains with drybreak couplers use

for Used Oil	3270-054 Bushing 1" x 3/4"
	4140-018 Nipple 1" NPT(M)
for Anti-freeze	4140-045 Nipple 3/4" NPT(M)

Used Fluid Equipment Spillguard

Spillguard Drain Description

The Balcrank Spillguard Drains will capture used fluids and transfer to any bulk storage tank using a quick coupler and evacuation system.

Spillguard Drain Details

- 2.1. Drain will have Balcrank "wide track" 4" caster dolly set for easy maneuvering on any floor surface.
- 2.2. Drain will have an all Steel cover, container, and base design, made in USA.
- 2.3. Drain will have a drainage bowl to be made from high strength poly to provide collapsible safety feature, to assist in preventing container failure when object is lowered onto drainage bowl.
- 2.4. Drain bowl will prevent splattering and include filter to keep debris from entering container and speed drainage.
- 2.5. Drain will have a tip resistant balanced design.
- 2.6. Drain will have a fluid level gauge included.
- 2.7. Drain will be powder coated for corrosion resistance with high quality powder coating. Drains are offered in black for used oil and green for used antifreeze.

Spillguard Drain Models Available:

- ☐ **4110-026** Used Oil
- ☐ **4110-028** Anti-freeze
- ☐ **4110-027** Drumless Used Oil Drain
- ☐ **4110-029** Drumless Anti-freeze Drain

Spillguard Drain Specifications:

- 4.1. Drain will be 24" W x 55"H (61" H fully extended)
- 4.2. Drain will have bowl dimensions of 19.25" diameter
- 4.3. Drain will have a capacity of 16 gal (60.5 l)
- 4.4. Drain will have a telescoping range of 0-27 in. (0-69 m)
- 4.5. Drain will have fluid outlet of 3/4" NPT(M) for Anti-freeze and 1" NPT(M) for Used Oil

Materials:

- 5.1. The wetted materials will consist of Zinc-plated Steel, Steel, Viton, HDPE, and PVC

Warranty:

- 6.1. Drain will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only)

Used Fluid Equipment Evacuator

Features

- Extract used oil and other fluids from any vehicle - safer, cleaner
 - No more stripped drain plugs
 - Great for cars, boats, motorcycles, and small engines
 - Easily remove overfills
 - Vacuum-charged unit is completely portable and easy to use
 - Includes five suction probes (metal and flexible)
 - Suction probes equipped with quick disconnect couplers
 - Adapters for BMW and Volkswagen included
 - Self-evacuating feature makes emptying clean and easy
 - Available version with clear bowl
- Capacity: 2 gal (7.5 l)



TECHNICAL DATA

	4140-056	4140-057
Tank capacity	18.5 gal (64.35 l)	18.5 gal (64.35 l)
Max. draining capacity	70%	80%
Air pressure for vacuum	100 psi (7 bar)	100 psi (7 bar)
Depressurization time	2' 15"	2' 15"
Suction hose	6 1/2" (2m)	6 1/2" (2m)
Draining hose	5' (1.5 m)	5' (1.5 m)
Service Bulletin	SB 4081	SB 4082

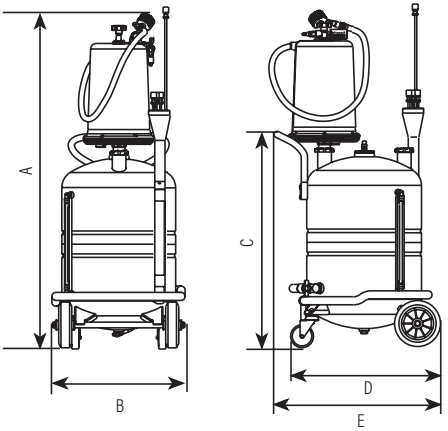
Warning! Not to be used with flammable fluids.

EXTRACTOR WANDS

833453	All	Wand Kit	Wand Kit Includes
833462	Flex	.27 X .19 X 39.37 (7 X 5 X 1000)	✓
833465	Flex	.23 X .15 X 27.55 (6 X 4 X 700)	✓
833466	Flex	.31 X .23 X 27.55 (8 X 6 X 700)	✓
833463	Rigid Copper	.19 X .15 X 27.55 (5 X 4 X 700)	✓
833464	Rigid Copper	.23 X .19 X 27.55 (6 X 5 X 700)	✓
833460	Adapter	Volkswagen, Audi Group	✓
833461	Adapter	Peugeot Group	✓



MODELS AVAILABLE	DESCRIPTION
4140-056	Oil Evacuator
4140-057	Oil Evacuator with Clear Dome and Mercedes adapter
833472	Vacuum pump kit



Dimensions inches (MM)				
A	B	C	D	E
46.06" (1,170)	18.5" (470)	29.5" (750)	18.70" (475)	22.84" (580)

Used Fluid Equipment

Evacuator

Evacuator Details

- 2.1. Evacuator will have six suction probes (metal and flexible)
- 2.2. Evacuator will have suction probes equipped with quick disconnect couplers
- 2.3. Evacuator will have adapters for BMW and Volkswagen included
- 2.4. Clear bowl version will have a capacity of 2 gal (7.5 l)

Evacuator Models Available:

- ☐ **4140-056** Oil Evacuator
- ☐ **4140-057** Oil Evacuator with Clear Dome and Mercedes Adaptor

Evacuator Specifications:

- 4.1. Evacuator will have a tank capacity of 18.5 gal (64.35 l)
- 4.2. Evacuator will have 100 psi (7 bar) air pressure for vacuum
- 4.3. Evacuator will have depressurization time of 2 hr and 15 min
- 4.4. Evacuator drain hose will be 5' (1.5 m) in length
- 4.5. Evacuator will have a 6.5" (2 m) suction hose

Warranty:

- 6.1. Evacuator will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only)

Used Fluid Equipment

Truck Drain and Drain-Pit Boss

The truck drain comes pre-assembled allowing for immediate use. Includes "used oil only" and "used anti-freeze only" decals for fluid identification. Connects to a used oil evacuation system using a cam-lock kit and evacuation system.

The Pit Boss rolling pit drain captures used fluids. Specifically designed to easily roll on guide tracks in the user's pit and connect to a used fluid evacuation system.

The low volume truck drain comes pre-assembled allowing for immediate use. Connects to a used oil evacuation system using a 3/4" cam-lock kit for anti-freeze or a 1" cam-lock kit for used fluid.

Features

Truck Drain

- Two fixed 8" wheels and one swivel caster
- Double baffles with upper screen and a catch lip help prevent fluid from splashing out
- Tubular U-handle design for excellent maneuvering
- All steel design

Low Profile Truck Drain

- Two anti-splash baffles, side splash guards and a metal catch screen. Select a 3/4" cam-lock kit for anti-freeze or a 1" cam-lock kit for used fluid

Pit Boss

- Two anti-splash baffles, side splash guards and a metal catch screen
- Front and rear drain ports
- 3" diameter wheels which are mounted to accommodate a pit track width of 34" to 53"
- Tool shelf below the tank for pit service tool
- All steel design



TECHNICAL DATA			
MODELS	4120-003 4120-004	4120-006	4140-060 4140-020
Tank Capacity	5.2 gal (20 l)	26 gal (98.4 l)	34 gal (128.7 l)
Fluid Outlet	4120-003 3/4" for anti-freeze 4120-004 1" for used oil	1"	4140-060 1" cam-lock nipple 4140-020 1" NPT(F) bare
Measurements	9" H x 15" W x 32" L	9" H x 24" W x 36" L	16.72" H x 28.4" W x 34" L, 2" adjustable unit height
Wetted Materials	Zinc Plated Steel, Steel, Viton, HDPE, and PVC	Zinc Plated Steel, Steel, Viton, HDPE, and PVC	Zinc Plated Steel, Steel, Viton, HDPE, and PVC
Service Bulletin	SB 4234	SB 4051	SB 4227

MODELS AVAILABLE	DESCRIPTION
4120-003	Low Profile Truck Drain for anti-freeze
4120-004	Low Profile Truck Drain for oil
4120-006	Low Profile Truck Drain Bare
4140-060	Drain - Pit Boss with Quick Connect Kit 4140-061
4140-020	Drain - Pit Boss Bare

Warning! Not to be used with flammable fluids.

CAM-LOCK COUPLER & NIPPLE RATED FOR 250 PSI (17 BAR)

Cam-Lock Coupler & Nipple		4140-044 Coupler 3/4" NPT(F)
		4140-017 Coupler 1" NPT(F)
		4140-054 Nipple 3/4" NPT(F)
		4140-055 Nipple 1" NPT(F)
		4140-045 Nipple 3/4" NPT(M)
		4140-018 Nipple 1" NPT(M)
		4140-046 Dust Cap 3/4" NPT(F)
		4140-019 Dust Cap 1" NPT(F)
		4140-052 Dust Plug 3/4" NPT(M)
		4140-053 Dust Plug 1" NPT(M)

CAM-LOCK COUPLER & NIPPLE RATED FOR VACUUM OR UP TO 3,000 PSI (207 BAR)

Cam-Lock Kits		4140-061 Cam-Lock Kit 1" for used oil for use with Pit Boss Bare 4140-020 Includes: Fluid Ball Valve, Cam-Lock nipple, Cap, and Hex nipple
		4140-067 Cam-Lock Kit 3/4" for anti-freeze for use with Pit Boss Bare 4140-020 Includes: Fluid Ball Valve, Cam-Lock nipple, Cap, and Hex nipple
Hose Kit for used oil evacuation		4140-013 Hose Kit for used oil evacuation Includes: 4140-017 - Cam-lock coupler 1", 8181-002X - Hose low pressure 2.5' x 1"

Used Fluid Equipment Truck Drain

Truck Drain Description

The Balcrank Truck drain will come pre-assembled allowing for immediate use. Truck drain will be designed to capture used fluids. Truck drain will include "used oil only" and "used anti-freeze only" decals, for ease of fluid identification. Truck drain can connect to a used fluid evacuation system.

Truck Drain Details

- 2.1. Drain will have two fixed 8" wheels and 1 swivel caster for easy maneuvering.
- 2.2. Drain will have an all Steel design, not to be more than 9" in height, made in USA.
- 2.3. Drain will have double baffles with upper screen and a catch lip help prevent oil from splashing out.
- 2.4. Drain will have a tubular U-handle design for excellent maneuvering.
- 2.5. Drain will be powder coated for corrosion resistance with high quality powder coating. Drains are available in safety yellow.

Truck Drain Models Available:

- ☐ **4120-006** Low Profile Truck Drain Bare

Truck Drain Specifications:

- 4.1. Drain will be 36"L x 24"W x 9"H
- 4.2. Drain will have a fluid outlet of 1" NPT (F)
- 4.3. Drain will have a capacity of 26 gal (98.4 l)

Materials:

- 5.1. The wetted materials will consist of Zinc-plated Steel, Steel, Viton[®], HDPE, and PVC

Warranty:

- 6.1 Drain will have a 1-year replacement only warranty (defects in materials and workmanship only)

Used Fluid Equipment Drain-Pit Boss

Rolling Pit Drain Description

The Balcrank Pit Boss Rolling pit drain will capture used fluids. Pit Boss will be specifically designed to easily roll on guide tracks in the user's pit and connect to a used fluid evacuation system.

Rolling Pit Drain Details

- 2.1. Pit Boss Rolling pit drain will include a metal catch screen.
- 2.2. Pit Boss Rolling pit drain will have two anti-splash baffles.
- 2.3. Pit Boss Rolling pit drain will have side splash guards.
- 2.4. Pit Boss Rolling pit drain will have a ball drain valve.
- 2.5. Pit Boss Rolling pit drain will have a cam-lock half coupler included.
- 2.6. Pit Boss Rolling pit drain will have front and rear drain ports.
- 2.7. Pit Boss Rolling pit drain will have 3" diameter wheels which are mounted to accommodate a pit track width of 34" to 53."
- 2.8. Pit Boss Rolling pit drain will have a tool shelf below the tank for pit service tools.
- 2.9. Pit Boss Rolling pit drain will have an all Steel design, made in USA.
- 2.10. Pit Boss Rolling pit drain will be powder coated for corrosion resistance with high quality powder coating. Drain is available in safety yellow.

Rolling Pit Drain Models Available:

- ☐ **4140-020** Bare
- ☐ **4140-060** Pit drain with connection kit

Rolling Pit Drain Specifications:

- 4.1. Drain will be 34" L x 28.4" D x 16.72"H (extends to 53.50")
- 4.2. Drain will have adjustable roller height is 2" (51 mm)
- 4.3. Drain will have capacity is 34 gal (1287 l)
- 4.4. Drain will have fluid outlet of 1" NPT (F)

Materials:

- 5.1. The wetted materials will consist of Zinc-plated Steel, and Steel, Viton, HDPE and PVC

Warranty:

- 6.1. Drain will have a 1-year parts replacement only warranty (defects in materials and workmanship only)

Used Fluid Equipment Low-Profile Truck Drain

Low-Profile Truck Drain Description

The low volume truck drain comes pre-assembled allowing for immediate use. Connects to a used oil evacuation system using a 3/4" cam-lock kit for anti-freeze or a 1" cam-lock kit for used fluid.

Low-Profile Truck Drain Details

- 2.1. Two anti-splash baffles, side splash guards and a metal catch screen. Select a 3/4" cam-lock kit for anti-freeze or a 1" cam-lock kit for used fluid

Low-Profile Truck Drain Models Available:

- ☐ **4120-003** Low Profile Truck Drain for anti-freeze
- ☐ **4120-004** Low Profile Truck Drain for oil

Low-Profile Truck Drain Specifications:

- 4.1. Drain will be 9" H x 15" W x 32" L
- 4.2. 4120-003 Drain will have a fluid outlet of 3/4" for anti-freeze
- 4.3. 4120-004 Drain will have a fluid outlet of 1" for used oil
- 4.4. Drain will have a capacity of 5.2 gal (20 l)

Materials:

- 5.1. The wetted materials will consist of Zinc-plated Steel, Steel, Viton[®], HDPE, and PVC

Warranty:

- 6.1 Low-Profile Truck Drain will have a 1-year replacement only warranty (defects in materials and workmanship only)

Lube Piping Specifications

Use these guidelines for selecting line sizes, tubing wall thicknesses and piping schedules for lubrication distribution systems. Air and water recommendations are for supply of air/water hose reels or for supply of air to pumps. Except as noted, maximum pressures shown represent the fluid pressure at the pump outlets when connected to their highest rated air supply pressure.

MOTOR OIL, GEAR OIL, ATF 0-200 FT			TUBING		PIPE	
PUMP	RATIO	MAX PRESSURE	OD	WALL	SIZE	WALL
LYNX®	1:1	120 psi (8 bar)	3/4"	0.025	3/4"	SCH 40
LYNX®	3:1	490 psi (34 bar)	3/4"	0.025	3/4"	SCH 40
LYNX® HD	5:1	760 psi (52 bar)	3/4"	0.025	3/4"	SCH 40
Panther®	3:1	490 psi (34 bar)	3/4"	0.025	3/4"	SCH 40
Panther®	5:1	760 psi (52 bar)	3/4"	0.025	3/4"	SCH 40
Tiger®	6:1	870 psi (60 bar)	1"	0.035	1"	SCH 40
Lion™ 350	5:1	875 psi (60 bar)	1"	0.035	1"	SCH 40
Lion™ 450	3:1	540 psi (37 bar)	3/4"	0.035	3/4"	SCH 40
Lion™ 450	6:1	1,080 psi (74 bar)	3/4"	0.035	3/4"	SCH 40
Lion™ 450	10:1	1,800 psi (124 bar)	3/4"	0.049	3/4"	SCH 40
Lion™ 600	6:1	1,050 psi (73 bar)	3/4"	0.035	3/4"	SCH 40
Lion™ 600	12:1	2,160 psi (149 bar)	3/4"	0.065	3/4"	SCH 40

GREASE 0-200 FT			TUBING		PIPE	
PUMP	RATIO	MAX PRESSURE	OD	WALL	SIZE	WALL
Panther®	50:1	6,000 PSI (414 bar)	5/8"	.0125	1/2"	SCH 80
Lion™ 350	60:1	8,700 PSI (600 bar)	5/8"	.0125	1/2"	SCH 80
Lion™ 450	25:1	5,000 PSI (345 bar)	5/8"	.0125	1"	SCH 40
Lion™ 450	40:1	8,000 PSI (551 bar)	5/8"	.0125	1/2"	SCH 80
Lion™ 450	70:1	7,000 PSI (483 bar)	5/8"	.0095	1/2"	SCH 160
Lion™ 600	80:1	8,000 PSI (551 bar)	5/8"	.0095	1/2"	SCH 160

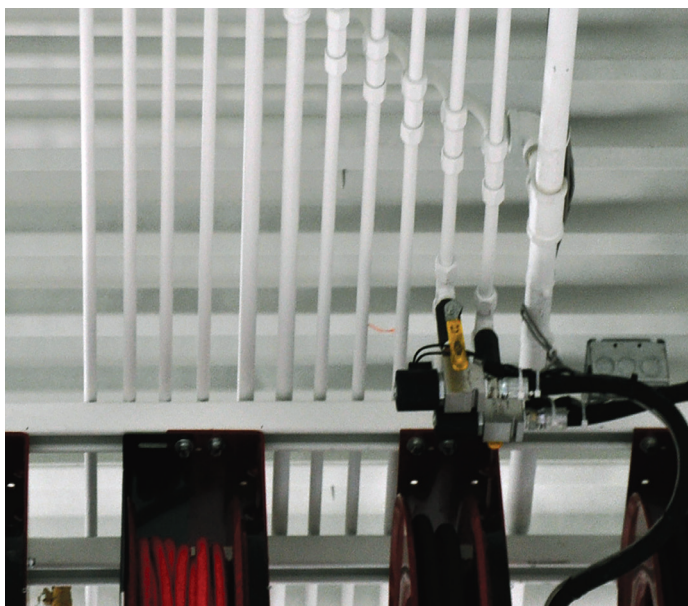
AIR & WATER 0-200 FT		TUBING		PIPE	
MAX PRESSURE		OD	WALL	SIZE	WALL
150 PSI (10 bar)		5/8	.025	1/2	SCH 40
250 PSI (17 bar)		5/8	.025	1/2	SCH 40
AIR & WATER 0-200 FT		TUBING		PIPE	
MAX PRESSURE		OD	WALL	SIZE	WALL
150 PSI (10 bar)		3/4	.025	3/4	SCH 40
250 PSI (17 bar)		3/4	.025	3/4	SCH 40

MOTOR OIL, GEAR OIL, ATF OVER 200 FT			TUBING		PIPE	
PUMP	RATIO	MAX PRESSURE	OD	WALL	SIZE	WALL
LYNX®	1:1	120 psi (8 bar)	N/A	N/A	N/A	N/A
LYNX®	3:1	490 psi (34 bar)	N/A	N/A	N/A	N/A
LYNX® HD	5:1	760 psi (52 bar)	1"	0.035	1"	SCH 40
Panther®	3:1	490 psi (34 bar)	1"	0.035	1"	SCH 40
Panther®	5:1	760 psi (52 bar)	1"	0.035	1"	SCH 40
Tiger®	6:1	870 psi (60 bar)	1 1/4"	0.042	1 1/4"	SCH 40
Lion™ 350	5:1	875 psi (60 bar)	1 1/4"	0.042	1 1/4"	SCH 40
Lion™ 450	3:1	540 psi (37 bar)	1"	0.035	1"	SCH 40
Lion™ 450	6:1	1,080 psi (74 bar)	1"	0.049	1"	SCH 40
Lion™ 450	10:1	1,800 psi (124 bar)	1"	0.065	1"	SCH 40
Lion™ 600	6:1	1,050 psi (73 bar)	1"	0.049	1"	SCH 40
Lion™ 600	12:1	2,160 psi (149 bar)	1"	0.083	1"	SCH 40

GREASE OVER 200 FT			TUBING		PIPE	
PUMP	RATIO	MAX PRESSURE	OD	WALL	SIZE	WALL
Panther®	50:1	5,000 PSI (345 bar)	3/4"	.125	3/4"	SCH 80
Lion™ 350	60:1	8,700 PSI (600 bar)	3/4"	.125	3/4"	SCH 80
Lion™ 450	25:1	5,000 PSI (345 bar)	3/4"	.125	1 1/2"	SCH 80
Lion™ 450	40:1	8,000 PSI (551 bar)	3/4"	.109	3/4"	SCH 80
Lion™ 450	70:1	7,000 PSI (483 bar)	3/4"	.109	3/4"	SCH 160
Lion™ 600	80:1	8,000 PSI (551 bar)	3/4"	.109	3/4"	SCH 160

Additional notes:

- 1) Line pressures for grease pumps are limited by the strength of steel tubing and grease hose working pressure ratings. Regulate air supply pressure for grease pumps to ("max pressure"/50) psi to avoid line pressure limits.
- 2) Based on use of fully annealed steel tubing, 15,000 psi (1,034 bar) yield strength.
- 3) Multiple air-operated pumps supplied by a common air line may require larger line sizes. Consult your Balcrank Representative for efficient size recommendations.
- 4) Minimize the number of elbows in grease line to reduce pressure drop. Use radius bends is preferred to elbows where installation permits.
- 5) Due to thermal expansion properties of multigrade fluids it is recommended to use a pressure relief valve to prevent premature wear of seals and accidental rupture of supply lines and hoses.

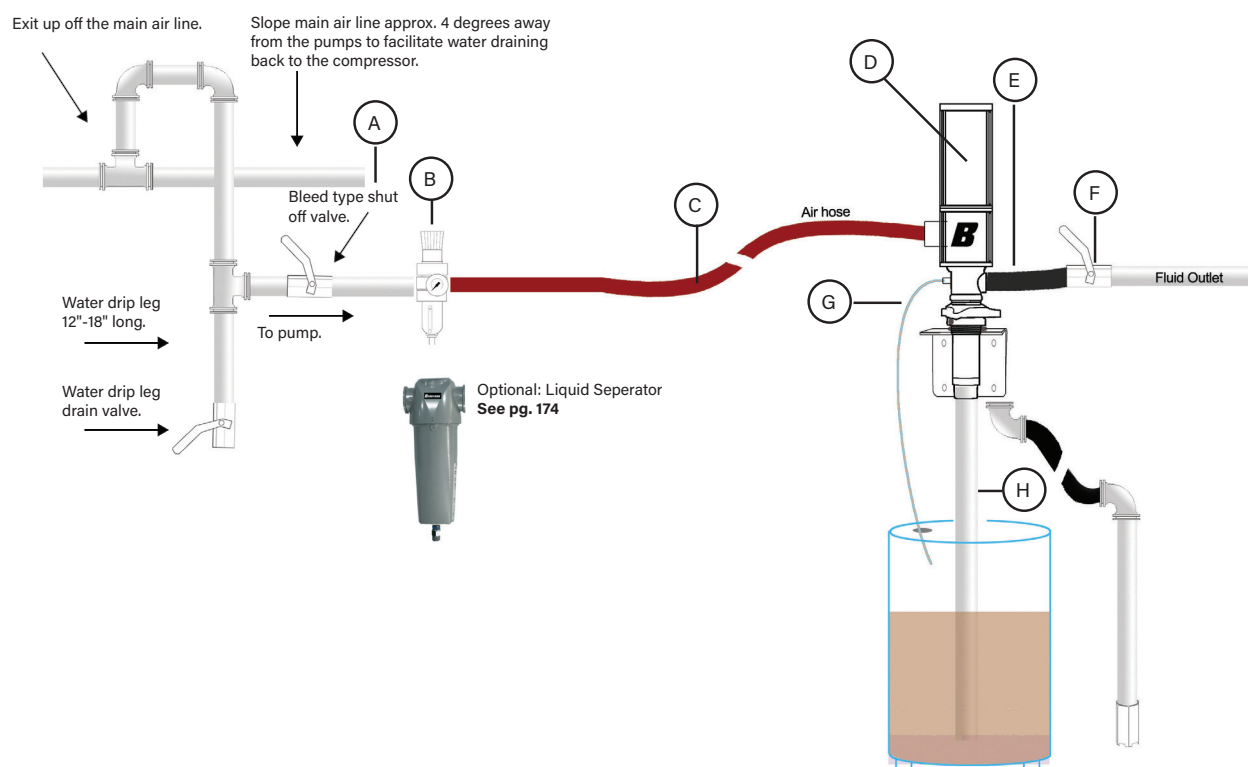


Replacement Hoses

MODEL PREFIX	HOSE TYPE	HOSE I.D.	MAX.WP (PSI)	HOSE END THREADS (NPT)	LENGTH SUFFIX IN FEET												
					2	3	5	6-7	8 - 12	16	20-25	30	40	50	60	70-75	100
8331	Grease	3/8"	4,000	1/4" M x 1/4" Msw				-7	-10		-20	-30	-40	-50			
8132	Air / Water	3/8"	300	1/4" M x 1/4" M			-5										
8134	Air / Water	3/8"	300	3/8" M x 3/8" MSW		-3	-5										
8135	Nitrogen-Green	3/8"	250	1/4" M x 1/2" M	-002x							-30	-40	-50			
8136	Air / Water	3/8"	300	1/4" M x 1/2" M						-16		-30	-40	-50	-60		
8141	Air / Water	1/2"	300	1/2" M x 1/2" M		-3	-5					-30	-40	-50	-60-65	-75	-100
8142	Air / Water	1/2"	300	1/2" M x 1/2" Msw	-002x												
8144	Air / Water	1/2"	300	1/2" M x 3/8" M		-3	-5										
8145	Air / Water	1/2"	300 & suc	1/2" M x 1/2" Msw			-5										
8146	Air / Water	1/2"	300 & suc	1/2" MSW x 3/8" F					-10								
8149	Air/Water	1/2"	300	1/2" M x 1/2" Msw			-5										
8161	Air/Water	3/4"	300	3/4" M x 3/4" Msw	-002x									-50		-75	
8171	Air / Water	3/4"	250 & suc	3/4" MSW x 3/4" Msw				-6									
8181	Air / Water	1"	250 & suc	1" MSW x 1" Msw	-002x		-5	-6						-50			
8241	Oil	1/2"	3,000	1/2" M x 1/2" M	-2	-3		-6	-8	-16	-20-25	-30	-40	-50	-60		
8242	Oil	1/2"	3,000	3/8" M x 3/8" M		-3	-5	-6			-20	-30	-40	-50			
8249	Oil	1/2"	3,000	1/2" M x 1/2" Msw	-002x	-4	-5	-6	-8-10	-16							
8250	Oil	1/2"	2,320	1/2" Msw x 1/2" M											-65	-75	-100
8261	Oil	3/4"	1,525	3/4" M x 3/4" M		-3	-5		-10								
8262	Oil	3/4"	1,525	1/2" Msw x 1/2" Msw					-10								
8263	Oil	3/4"	1,525	3/4" M x 1/2" Msw					-10								
8264	Oil	3/4"	1,525	3/4" M x 3/4" Msw	-002x	-3	-5					-30		-50		-75	
8281	Oil	1"	2,250	1" M x 1" Msw	-002x		-5							-50			
8321	Grease	1/4"	5,000	1/4" M x 1/4" Msw				-7				-30	-40	-50			
8322	Grease	1/4"	5,000	1/2"-27 F x 1/2"-27 F			-5				-20			-50			
8323	Grease	1/4"	5,000	1/4" M x 3/8" M								-30	-40	-50	-60		
8332	Grease	3/8"	4,000	1/4" M x 3/8" M			-5					-30	-40	-50	-60-65		
8333	Grease	3/8"	4,000	3/8" M x 3/8" M			-5		-10			-30					
8340	Grease	1/2"	5,000	1/2" M x 1/2" Msw	-002x				-10		-20					-75	
8466	Diesel	3/4"	50	3/4" M x 3/4" Msw	-002x							-30		-50			
8481	Diesel	1"	50	1" M x 1" Msw	-002x									-50			
Threads (BSPP)																	
8551	DEF	1"	50	Cut end x simple spout				-6									
8560	DEF	3/4"	150	Cut ends w/ hose clamps					-12								
8561	DEF	3/4"	150	Cut end x 3/4" M		-3		-6	-12	-16	-20	-30					
8562	DEF	3/4"	150	3/4" M x 3/4" Msw		-3											
8569	DEF	3/4"	150	3/4" Msw x 3/4" Msw W/ restrictors						-16	-20	-30		-50			
8570	DEF	3/4"	150	Cut ends w/ hose clamps				-6									
8572	DEF	1"	150	Cut ends w/ hose clamps				-6									
8572	DEF	1"	150	Cut ends w/ hose clamps				-006									

for complete hose model specification, combine "Model Prefix" in the first column with a "Length Suffix" in the right-hand table. Example: Model 8134-030, 3/8" Air/Water Hose, 30 ft. length.

Oil pumping system



A - Airline Bleed Type Shut-off Valve

3230-009, 3/8"
3230-010, 1/2"
3230-011, 3/4"

B - Airline Filter/Regulator

3260-034, 1/4"
3260-035, 3/8"
3260-036, 1/2"

C - Air Connection Hose

8132-005, 1/4"
8134-005, 3/8"
8149-005, 1/2"

D - Balcrank oil piston pump

1130-015 Panther® 3:1
1130-016 Panther® 5:1
1130-019 Tiger® 6:1
1430-010 Lion™ 350 5:1
1430-002 Lion™ 450 6:1
1430-003 Lion™ 450 10:1

E - Fluid Connection Hose

8249-005, 1/2" x 5'
8264-005, 3/4" x 5'

F - Fluid Shut-off Valve

3230-020, 1/2"
3230-007, 3/4"

G - Pressure Relief

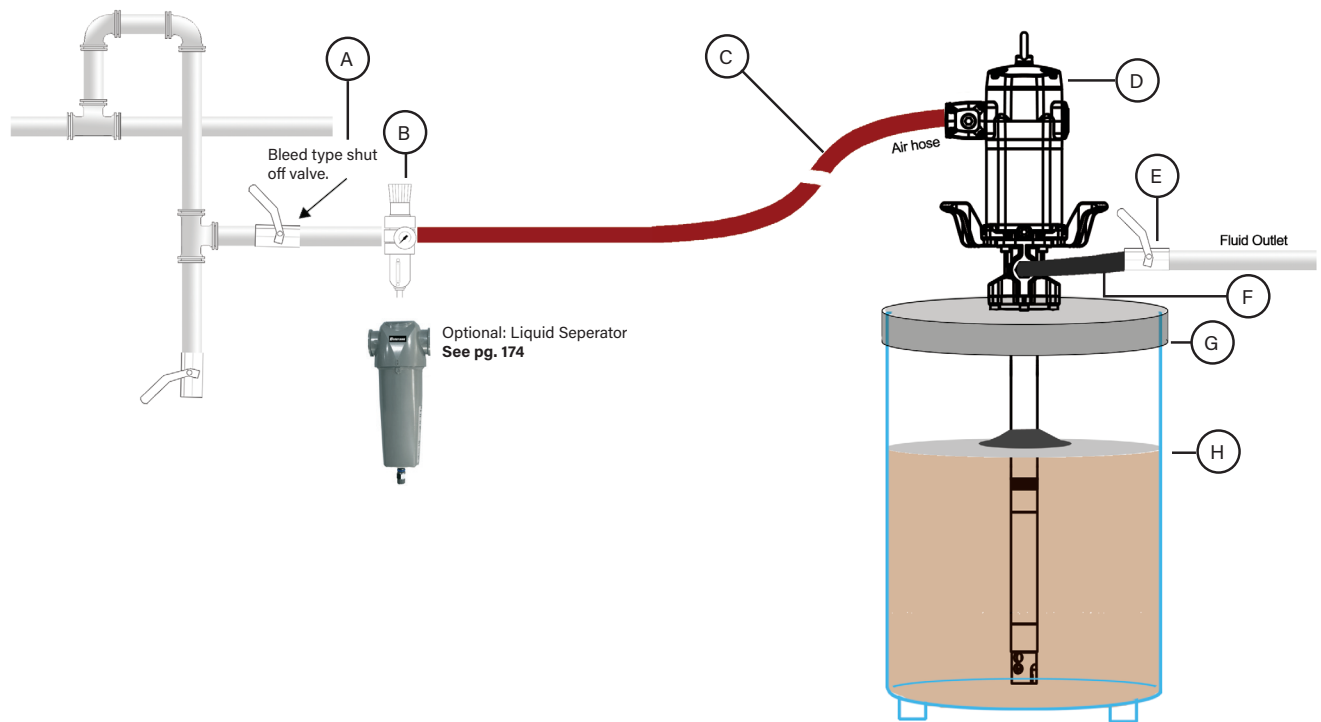
Included with Panther®, Tiger®, and Lion™ pumps

3120-214 External pressure relief kit
1/2" 850 psi
3120-215 External pressure relief kit
3/4" 1450 psi

H - Suction Tube for Direct Immersion for Panther® 3:1, 5:1, Tiger® 6:1 HP and Lion 450/600 Pumps

4412-044	1" NPT(M) x 18" - 30°	16 gal drum
4412-046	1" NPT(M) x 26" - 30°	55 gal drum
4412-048	1" NPT(M) x 30" - 30°	165/280 gal bench tank double tap
4412-051	1" NPT(M) x 42" - 30°	275/330 gal horizontal obround double tap
4412-052	1" NPT(M) x 60" - 30°	330 gal vertical obround
4412-049	1" NPT(M) x 32" - 30°	275 gal tote
4412-050	1" NPT(M) x 39" - 30°	330 gal tote
4412-031	1 1/2" NPT x 38" - 30°	Lion, 55 gal drum
4412-032	1 1/2" NPT x 47" - 30°	Lion, 275 gal horizontal obround
4412-033	1 1/2" NPT x 63" - 30°	Lion, 275 gal vertical obround
4412-034	1 1/2" NPT x 75" - 30°	Lion, 330 gal vertical obround

Grease pumping system



A - Airline Bleed Type Shut-off Valve

3230-009, 3/8"

3230-010, 1/2"

B - Airline Filter Regulator

3260-034, 1/4"

3260-035, 3/8"

3260-036, 1/2"

C - Air Connection Hose

8132-005, 1/4"

8132-005, 3/8"

8149-005, 1/2"

D - Balcrank piston grease pump

1150-010 Panther® 50:1 120 lb

1150-011 Panther® 50:1 400 lb

1450-012 Lion™ 350 60:1 120 lb

1450-011 Lion™ 350 60:1 400 lb

1450-003 Lion™ 450 40:1 120 lb

1450-002 Lion™ 450 40:1 400 lb

E - Fluid Shut-off Valve

3230-015, 1/2"

3230-016, 3/4"

3230-017, 1"

F - Fluid Connection Hose

8321-007 Panther® 1/4" x 7"

8333-007 Lion™ 350 3/8" x 7"

8340-010 Lion™ 450/600 1/2" x 10"

G - Drum Cover 400 lb drum

4420-009 Panther® 120 lb

4420-004 Panther® 400 lb

4420-011 Lion™ 350 120 lb

4420-015 Lion™ 350 400 lb

4420-014 Lion™ 450/600 120 lb

4420-013 Lion™ 450/600 400 lb

H - Follower Plate

4440-009 Panther® 50:1 120 lb

4440-004 Panther® 50:1 400 lb

4440-014 Lion™ 350 120 lb

4440-018 Lion™ 350 400 lb

4440-017 Lion™ 450/600 120 lb

4440-015 Lion™ 450/600 400 lb

Hose Reel System

A - Airline shut-off valve

3230-010, 1/2"

3230-007, 3/4"

B - Solenoid Valve

Refer to FIC system for correct valve

C - Mounting Channel Plate

2230-014, 1 per reel

D - Mounting Channel

2230-003, 1 reels

2230-004, 2 reels

2230-005, 3 reels

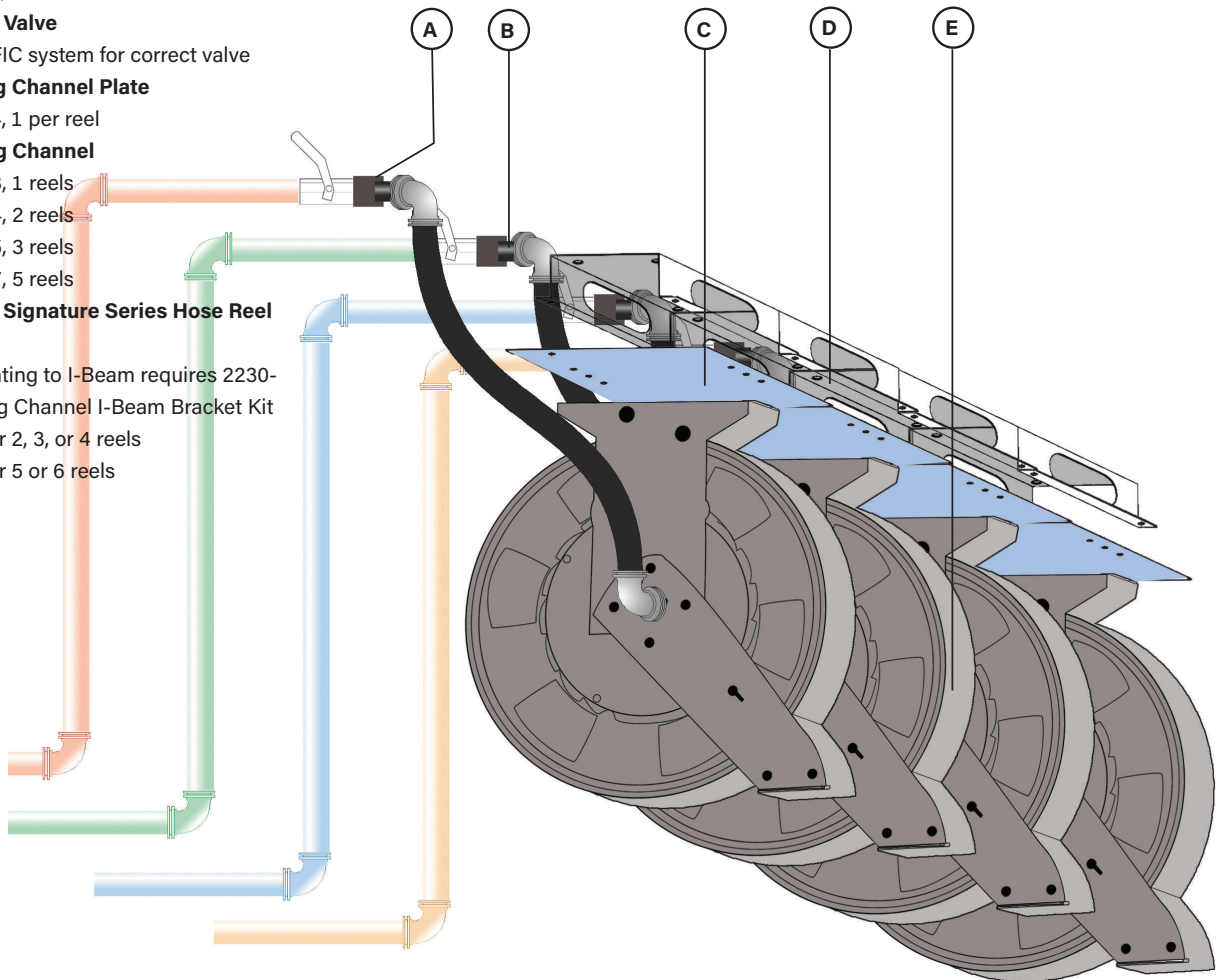
2230-007, 5 reels

E - Balcrank Signature Series Hose Reel

NOTE: Mounting to I-Beam requires 2230-002 Mounting Channel I-Beam Bracket Kit

2 brackets for 2, 3, or 4 reels

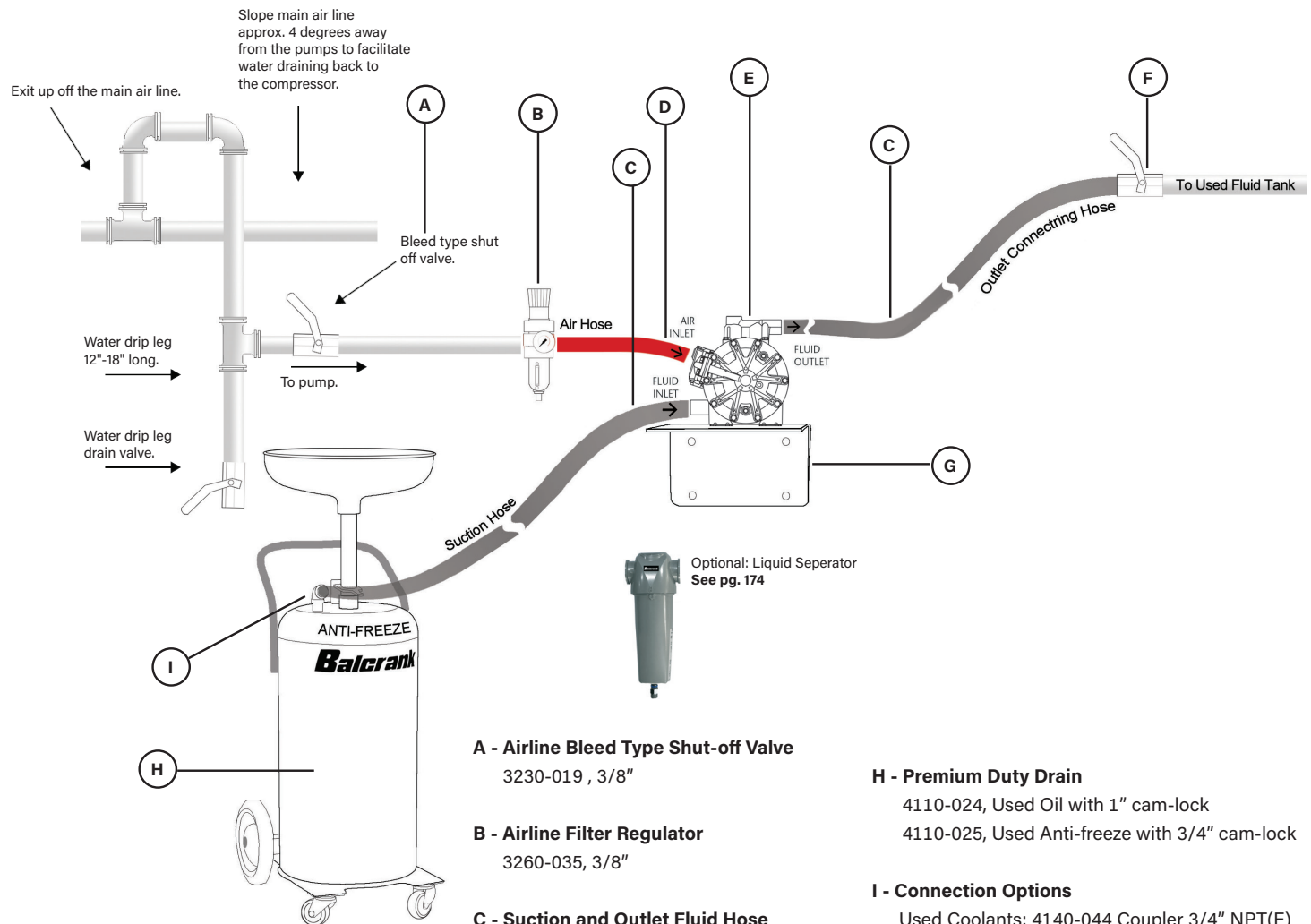
3 brackets for 5 or 6 reels



NOTE:

Installation detail is based on one location and is intended to clarify the design intent. Adjust hose reel installation as required to suit specific location(s). Number of reels shown on drawing and installation shall comply with Balcrank's reel installation requirements.

Used Fluid Evacuation Systems



A - Airline Bleed Type Shut-off Valve

3230-019, 3/8"

B - Airline Filter Regulator

3260-035, 3/8"

C - Suction and Outlet Fluid Hose

8264-005, 5' x 3/4" x 2

D - Air Connection Hose

8134-005, 5' X 3/8"

E - CenterFlo

1120-037, CF50 Buna-N, Hytrel® AODD

F - Fluid Shut-off Valve

3230-021, 3/4"

3230-022, 1"

G - Wall Mount Bracket

4411-036

H - Premium Duty Drain

4110-024, Used Oil with 1" cam-lock

4110-025, Used Anti-freeze with 3/4" cam-lock

I - Connection Options

Used Coolants: 4140-044 Coupler 3/4" NPT(F)

4140-054 Nipple 3/4" NPT(F)

4140-046 Dust Cap 3/4" NPT(F)

4140-052 Dust Plug 3/4" NPT(F)

Used Oils:

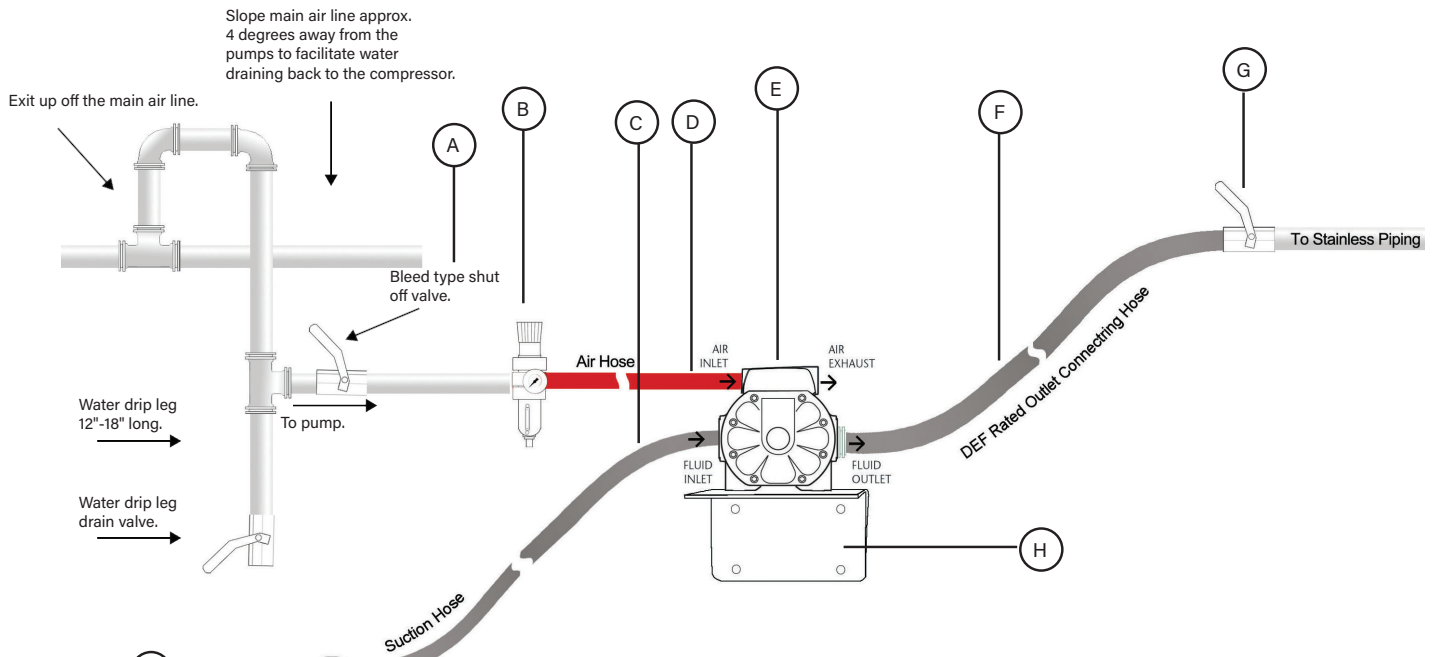
4140-017 Coupler 1" NPT(F)

4140-055 Nipple 1" NPT(F)

4140-019 Dust Cap 1" NPT(F)

4140-053 Dust Plug 1" NPT(F)

DEF Pumping Systems



A - Airline Bleed Type Shut-off Valve
3230-009, 3/8"

B - Airline Filter Regulator
3260-035, 3/8"

C - DEF Rated Inlet Hose
8570-006, 6' x 3/4"

D - Air Connection Hose
8134-005, 5' x 3/8"

E - CenterFlo
1120-025A, CF15 Poly/BSPP AODD
1120-031A, CF30 Poly/BSPP AODD

F - DEF Rated Outlet Connecting Hose
8561-006, 6' x 3/4' Swivel Virgin PVC
2230-032, 3/4" Stainless Steel Clamp

G - Outlet Valve - Stainless Steel

H - Wall Mount Bracket
4411-016

I - Suction Kit includes; RSV series
coupler, insert and dip tube
4530-045, 275 gal tote
4530-046, 330 gal

