

Contact	Phone	e-mail
Don Youman President / COO	949-973-1445	dyouman@balcrank.com
Mike Smith West Regional Manager	951-285-3862	msmith@balcrank.com
Don Smith Southeast Regional Manager	404-307-5423	dsmith@balcrank.com
Brian Fleming Northeast Regional Manager	331-302-9164	bflaming@balcrank.com
Tom Cates Product Manager	828-785-9139	tcates@samoacorporation.com

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.

Product Substitution Procedures

- c) Submit data relating to changes in construction schedule.
 - 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 Pumps: Oil

Reciprocating Piston Pump Description

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

Pumps
Piston

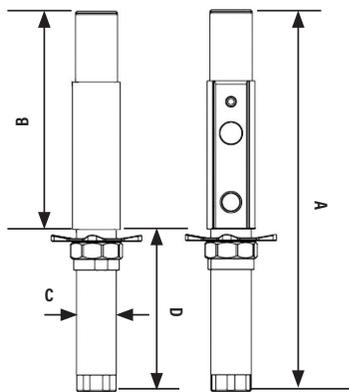
Reciprocating Piston Pumps: Oil Product Selection Matrix

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

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

LYNX 1:1 Piston Pump

Pumps
Piston



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			
A	B	C	D
46 1/2" (1181 mm)	11 1/4" (286 mm)	2 3/64" (52 mm)	35 1/4" (895 mm)
1160-008			
A	B	C	D
47 1/4" (1200 mm)	11 1/4" (286 mm)	2" (50 mm)	36" (914 mm)

Overview

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

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

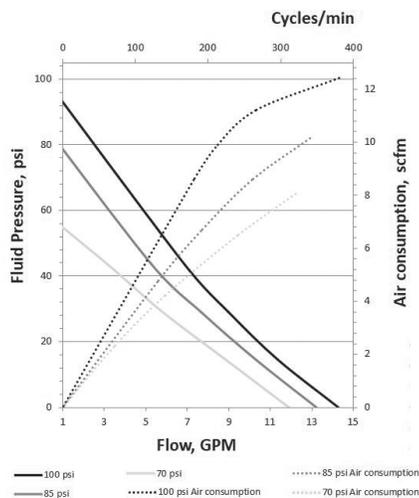
MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1110-010	1:1 Bare carbon Steel stub pump with bung adapter
<input type="checkbox"/> 1110-009	1:1 Bare carbon Steel drum pump with bung adapter
<input type="checkbox"/> 1160-008	1:1 Bare stainless Steel drum pump with bung adapter

Fluids

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

Applications

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



TECHNICAL DATA

Pump Ratio	1:1
Operating air pressure	45 -150 psi (3 -10 bar)
Cycles per gallon	31 cyc/gal (8.2 cyc/liter)
Air consumption 100 psi (7 bar) & 3 gal/min (11 l/min)	3.50 scfm
Max Fluid stall pressure @ 150 psi (10 bar) ⁽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	3/4" NPT(F)
Fluid outlet 1160-008	3/4" NPT(M)
Wetted materials 1110-010 & 1110-009	Steel, Brass, Aluminum, Buna-N™, and Polyurethane
1160-008	Stainless Steel, Viton, and PTFE
Service Bulletin 1110-010, 1110-009	SB 1102
Service Bulletin 1160-008	SB 1143

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

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

LYNX 1:1 Pump Description

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

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

LYNX 1:1 Models Available

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

LYNX 1:1 Pump Specifications

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

Materials

The wetted materials will consist of:

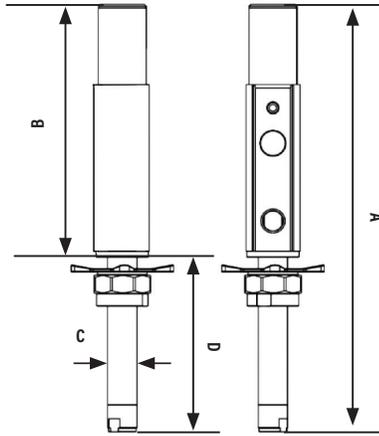
- 4.1. 1110-010 & 1110-009 Steel, Brass, Aluminum, Buna-N™, and Polyurethane
- 4.2. 1160-008 Stainless Steel, Viton, and PTFE

Warranty

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

LYNX 3:1 Piston Pump

Pumps
Piston



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

Overview

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

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

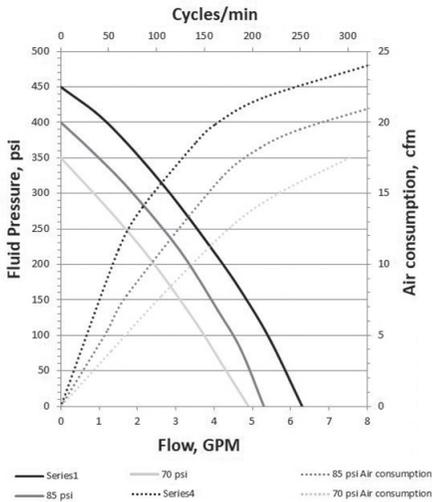
MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1110-007	3:1 Bare carbon Steel stub pump with bung adapter

Fluids

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

Applications

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



TECHNICAL DATA

Pump Ratio	3:1
Operating air pressure	45 -150 psi (3 -10 bar)
Cycles per gallon	98 cyc/gal (26.5 cyc/liter)
Air consumption 100 psi (7 bar) & 3 gal/min (11 l/min)	18.80 scfm
Max Fluid stall pressure @ 150 psi (10 bar) ⁽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 3 x safety factor.

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

LYNX 3:1 Pump Description

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

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

LYNX 3:1 Models Available

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

LYNX 3:1 Pump Specifications

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

Materials

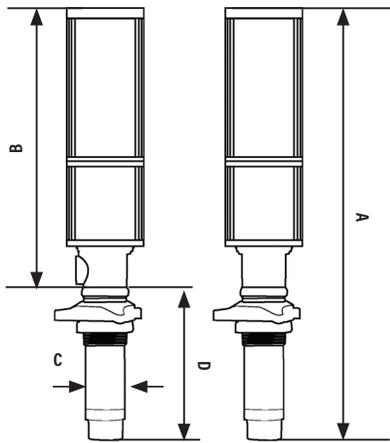
- 4.0. The wetted materials will consist of Buna-N™, Steel, Brass, Aluminum, and Polyurethane

Warranty

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

Panther HP 3:1

Pumps
Piston



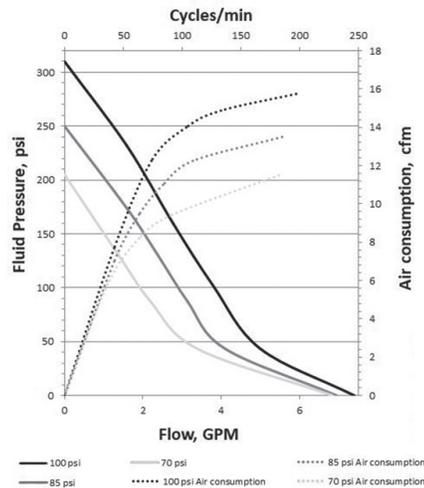
DIMENSIONS INCHES (MM)			
1130-015 & 1130-020			
A	B	C	D
23.5" (523.9 mm)	14 3/8" (285 mm)	2 4/5" (71 mm)	6 1/2" (158.7 mm)
1130-017			
21 8/9" (555.6 mm)	14 3/8" (285 mm)	2 1/8" (54 mm)	7 1/2" (190.5 mm)

Fluids

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

Applications

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



Overview

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

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

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

TECHNICAL DATA	
Pump Ratio	3:1
Operating air pressure	10-150 psi (.7-10 bar)
Cycles per gallon	34 cyc/gal (8.98 cyc/liter)
Air consumption 100 psi (7 bar) & 4 gal/min (15 l/min)	19.70 SCFM
Max. fluid stall pressure @150 psi (10 bar) ⁽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 3 x safety factor.

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Panther® HP 3:1 Pump Description

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

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

Panther® HP 3:1 Models Available

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

Panther® HP 3:1 Pump Specifications

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

Materials

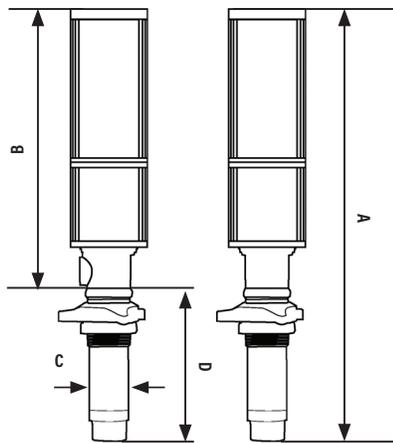
- 4.1. Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon.

Warranty

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

Panther HP 5:1

Pumps
Piston



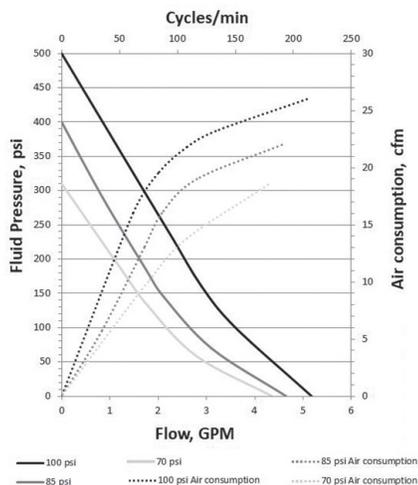
DIMENSIONS INCHES (MM)			
1130-016 & 1130-021			
A	B	C	D
23.5" (523.9 mm)	14 3/8" (285 mm)	2 4/5" (71 mm)	6 1/2" (158.7 mm)
1130-018			
21 8/9" (555.6 mm)	14 3/8" (285 mm)	1 7/8" (47.6 mm)	7 1/2" (190.5 mm)

Fluids

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

Applications

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



Overview

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

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

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

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

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

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Panther® HP 5:1 Pump Description

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

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

Panther® HP 5:1 Models Available

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

Panther® HP 5:1 Pump Specifications

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

Materials

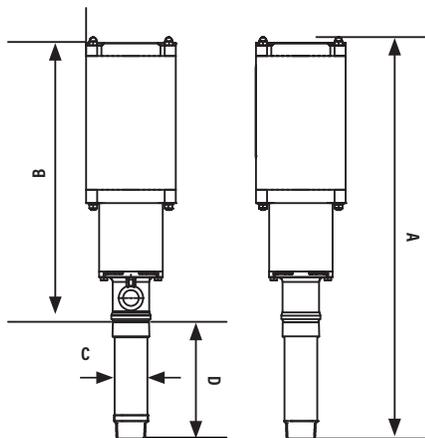
- 4.1. The wetted materials will consist of Steel, Nickel Plated Steel, Stainless Steel, Aluminum, Ultrathane, Buna-N™, and Nylon

Warranty

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

Tiger HP 6:1

Pumps
Piston



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

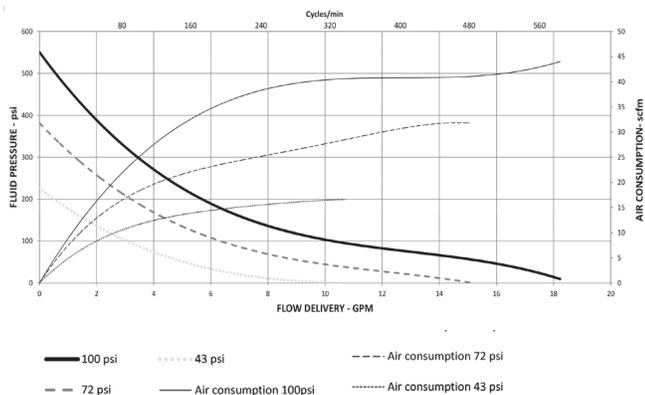
Fluids

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

Applications

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

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



Overview

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

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

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

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

TECHNICAL DATA	
Pump Ratio	6:1
Operating air pressure	40-150 psi (3-10 bar)
Cycles per gallon	31 cyc/gal (8.2 cyc/liter)
Air consumption 100 psi (7 bar) & 8 gal/min (30 l/min)	59 SCFM
Max fluid stall pressure @150 psi (10 bar) ⁽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 3 x safety factor.

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Tiger HP 6:1 Pump Description

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

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

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

Tiger HP 6:1 Models Available

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

Tiger HP 6:1 Pump Specifications

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

Materials

The wetted materials will consist of:

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

Warranty

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

Reciprocating Piston Pumps: High Flow Oil

Reciprocating Piston Pump LION 450/600 Oil Description

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

Pumps
Piston

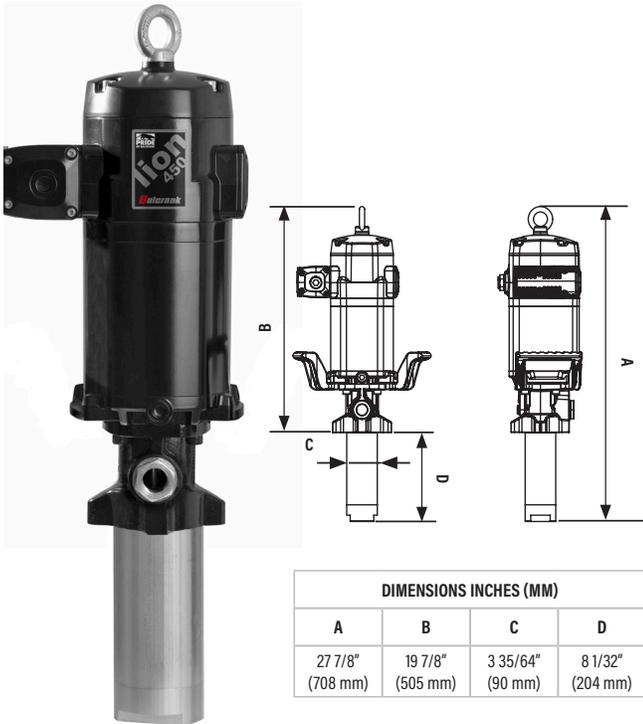
Reciprocating Piston Pumps: High Flow Oil Product Selection Matrix

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

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

Lion™ 450 - 3:1

Pumps
Piston



Overview

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

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

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1430-001	Lion™ 450 3:1 stub pump

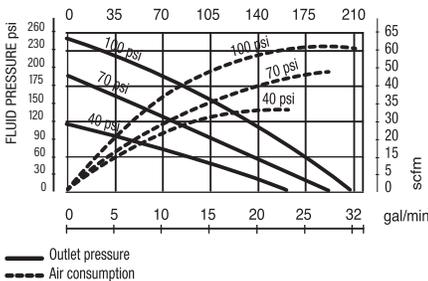
Fluids

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

Applications

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

TEST FLUID: SAE 10
Cycles/min.



TECHNICAL DATA

Pump Ratio	3:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	6
Air Consumption ⁽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 3 x safety factor.

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Lion™ 450 - 3:1 Pump Description

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

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

Lion™ 450 - 3:1 Pump Models Available

- 1430-001 Lion™ 450 3:1 stub pump

Lion™ 450 - 3:1 Pump Specifications

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

Materials

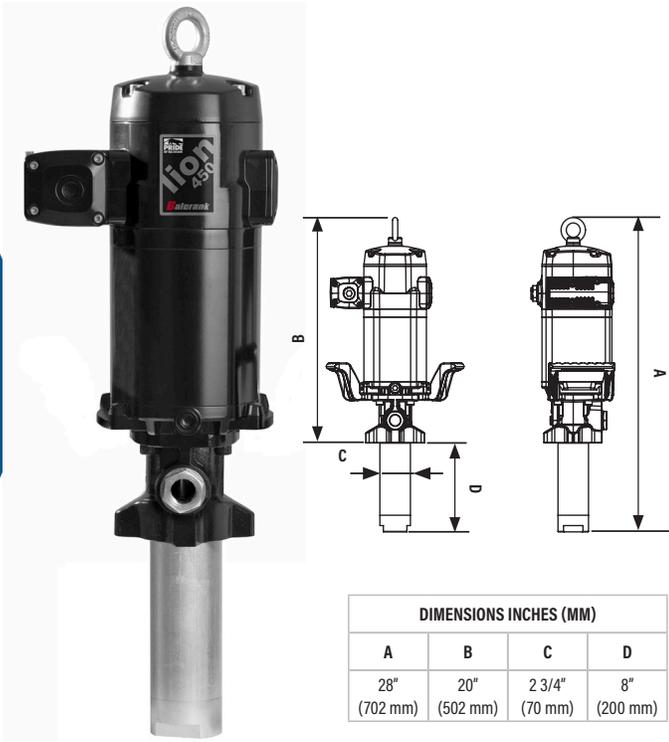
- 4.1. The wetted materials will consist of Steel, Hard Chromed Steel, Zinc Plated Steel, Stainless Steel, Cast Iron, Polyurethane, Buna-N™, Bronze Filled PTFE

Warranty

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

Lion™ 450 - 6:1

Pumps
Piston



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

Overview

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

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

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

Fluids

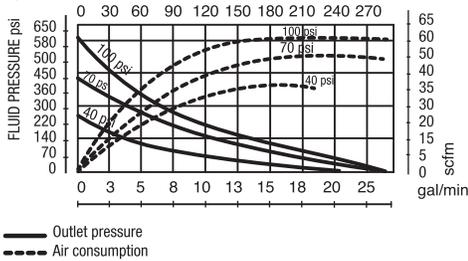
- Synthetic and mineral based lubricants
- Hydraulic fluid
- Gear oil
- Transmission fluid

Applications

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

TEST FLUID: SAE 10

Cycles/min.



TECHNICAL DATA

Pump Ratio	6:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption ⁽¹⁾	29 cfm (830 NI/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 3 x safety factor.

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Lion™ 450 - 6:1 Pump Description

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

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

Lion™ 450 - 6:1 Pump Models Available

- ☐ 1430-002 Lion™ 450 6:1 stub pump

Lion™ 450 - 6:1 Pump Specifications

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

Materials

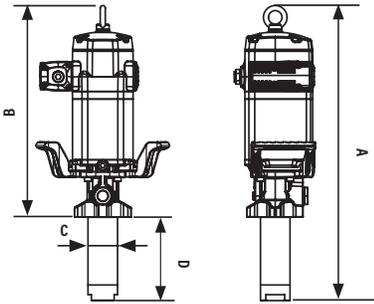
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

Warranty

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

Lion™ 450 - 10:1

Pumps
Piston



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

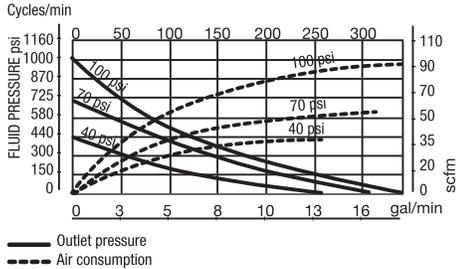
Fluids

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

Applications

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

TEST FLUID: SAE 10



Overview

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

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

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

TECHNICAL DATA	
Pump Ratio	10:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	19
Air Consumption ⁽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 @ 100 psi (7 bar)	18 gal/min (68 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, hard chromed steel, steel, polyurethane, Buna-N™ and zinc
Noise level ⁽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 3 x safety factor.

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Lion™ 450 - 10:1 Pump Description

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

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

Lion™ 450 - 10:1 Pump Models Available

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

Lion™ 450 - 10:1 Pump Specifications

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

Materials

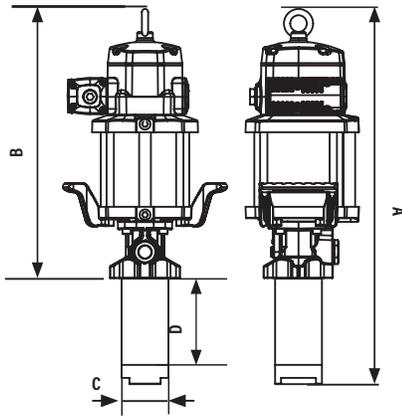
- 4.1. The wetted materials will consist of Cast Iron, Hard Chromed Steel, Steel, Polyurethane, Buna-N™ and Zinc

Warranty

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

Lion™ 600 - 6:1

Pumps
Piston



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

Overview

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

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

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

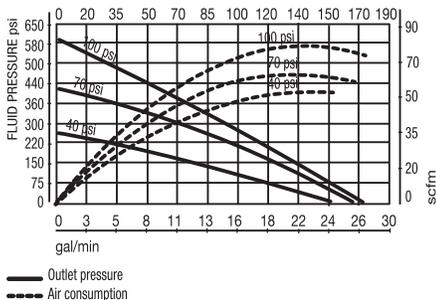
Fluids

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

Applications

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

TEST FLUID: SAE 10
Cycles/min



TECHNICAL DATA

Pump Ratio	6:1
Operating air pressure	30 to 175 psi (2 to 12 bar)
Cycles per gallon	6
Air Consumption ⁽¹⁾	39 cfm (1,100 l/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 @ 100 psi (7 bar)	26 gal/min (100 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, aluminum, nickel, steel, polyurethane, Buna-N™ and zinc
Noise level ⁽²⁾	80 dB
Service Bulletin	SB 1137

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

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

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

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Lion™ 600 - 6:1 Pump Description

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

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

Lion™ 600 - 6:1 Pump Models Available

- ❑ 1430-005 Lion™ 600 6:1 stub pump

Lion™ 600 - 6:1 Pump Specifications

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

Materials

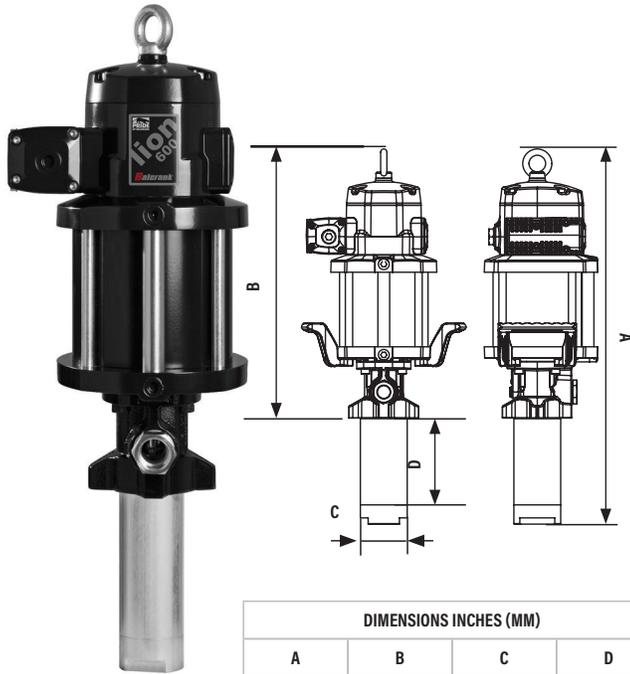
- 4.1. The wetted materials will consist of Cast Iron, Aluminum, Nickel, Steel, Polyurethane, Buna-N™ and Zinc

Warranty

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

Lion™ 600 - 12:1

Pumps
Piston



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

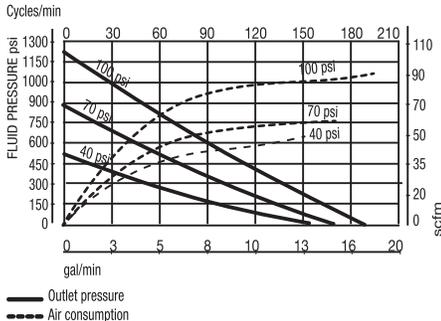
Fluids

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

Applications

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

TEST FLUID: SAE 10



Overview

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

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

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

TECHNICAL DATA	
Pump Ratio	12:1
Operating air pressure	30 to 180 psi (2 to 12.4 bar)
Cycles per gallon	11
Air Consumption ⁽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 @ 100 psi (7 bar)	17 gal/min (65 l/min)
Air inlet	1/2" NPT(F)
Fluid inlet	1 1/2" NPT(F)
Fluid outlet	3/4" NPT(F)
Wetted materials	Cast iron, hard chromed steel, steel, polyurethane and Buna-N™
Noise level ⁽²⁾	80 dB
Service Bulletin	SB 1138

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

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

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

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

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

Verify fluid compatibility with MSDS sheets.

Contact Balcrank for specific system design performance and technical data.

Lion™ 600 - 12:1 Pump Description

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

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

Lion™ 600 - 12:1 Pump Models Available

- ☐ 1430-006 Lion™ 600 12:1 stub pump

Lion™ 600 - 12:1 Pump Specifications

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

Materials

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

Warranty

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



Reciprocating Piston Pumps: Grease 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 (7.25 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

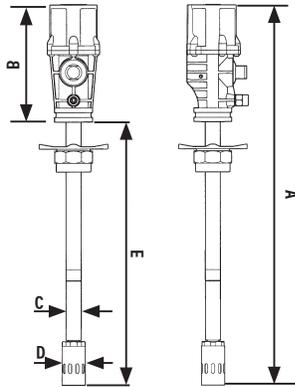
Pump performance is predicated on viscosity (temperature), pumping distance, pipe diameter and dispense volume requirements. Contact Balcrank for system design assistance and technical data.

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

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

LYNX HP 55:1

Pumps
Piston



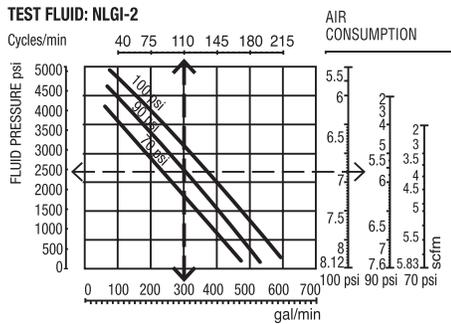
DIMENSIONS INCHES (MM)				
1150-022				
A	B	C	D	E
24.40" (620 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	16.5" (418 mm)
1150-023				
36.62" (930 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	28.65" (728 mm)
1150-024				
44.12" (1120 mm)	8" (202 mm)	1" (26 mm)	1.56" (40 mm)	36.14" (918 mm)

Fluids

- Grease up to NLGI-2

Applications

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1150-022	55:1 LYNX Grease 25-35 lbs
<input type="checkbox"/> 1150-023	55:1 LYNX Grease 120 lbs
<input type="checkbox"/> 1150-024	55:1 LYNX Grease 400 lbs

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	1.2 lb/min (0.5 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
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.

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

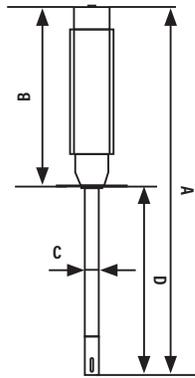
- 4.1. The wetted materials will consist of Steel, Zinc, Aluminum, Buna-N™, PTFE

Warranty

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

Panther® HP 50:1

Pumps
Piston



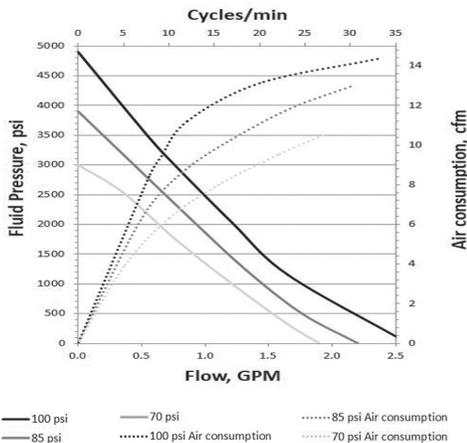
DIMENSIONS INCHES (MM)			
1150-009			
A	B	C	D
36.75" (933 mm)	18.75" (476 mm)	1.25" (31.75 mm)	18" (457 mm)
1150-010			
46.75" (1187 mm)	18.75" (476 mm)	1.25" (31.75 mm)	28" (711 mm)
1150-011			
52.75" (1340 mm)	18.75" (476 mm)	1.25" (31.75 mm)	34" (834 mm)

Fluids

- Grease up to NLGI-2

Applications

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1150-009	50:1 Panther® HP bare 25-35 lbs
<input type="checkbox"/> 1150-010	50:1 Panther® HP bare 120 lbs
<input type="checkbox"/> 1150-011	50:1 Panther® HP bare 400 lbs

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	7,500 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

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.

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

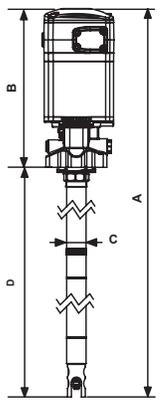
- 4.1. The wetted materials will consist of Stainless Steel, Carbon Steel, Brass, Aluminum, Delrin, Ultrathane, and Buna-N™

Warranty

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

Lion™ 350 60:1

Pumps
Piston



DIMENSIONS INCHES (MM)			
1450-013			
A	B	C	D
31.5" (803 mm)	11.25" (287 mm)	1.66" (35 mm)	20.25" (516 mm)
1450-012			
40" (1,017 mm)	11.25" (287 mm)	1.66" (35 mm)	28.75" (730 mm)
1450-011			
47.75" (1,212 mm)	11.25" (287 mm)	1.66" (35 mm)	36.5" (925 mm)

Overview

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).

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-013	Lion™ 60:1 Grease 25-35 lbs
<input type="checkbox"/> 1450-012	Lion™ 60:1 Grease 120 lbs
<input type="checkbox"/> 1450-011	Lion™ 60:1 Grease 400 lbs

Fluids

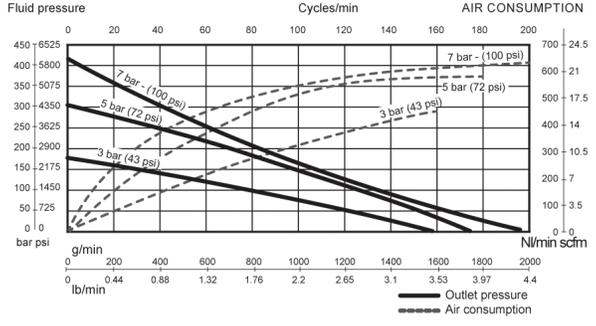
- Grease up to NLGI-2

Applications

- Agriculture/farm implements
- Small auto/truck shops
- Tire & transmission shops
- In-plant low 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)	50
Operating air pressure range	20-145 psi (1.5-10 bar)
Max pump delivery @ 100 psi (7 bar)	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

NLGI-2, 70 °F (21 °C) CAPACITY CURVE



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.

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

Panther® HP 50:1 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 a delivery of 1.1 lbs/min (500 g/min) @ 70 psi (5 bar) and 80 cpm

Materials

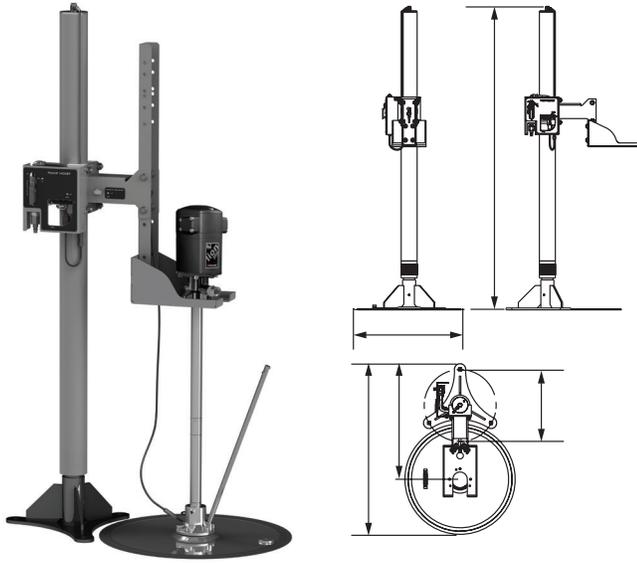
- 4.1. The wetted materials will consist of Cast iron, Hard chromed steel, Steel, UHMWPE, NBR, PTFE, Viton

Warranty

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

Grease Inductor - Lion™ 350 60:1 Inductor

Pumps
Piston



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)

Fluids

- Grease up to NLGI-2

Applications

- Agriculture/farm implements
- Small auto/truck shops
- Tire & transmission shops
- In-plant low volume use
- Truck fleets
- Lube trucks
- Marine

Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 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
<input type="checkbox"/> 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

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.

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

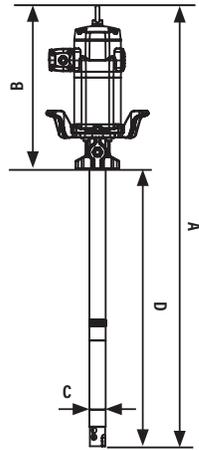
- 3.1. Inductor package will have a 3" (75 mm) diameter of the pneumatic cylinder
- 3.2. Inductor package will have an air inlet of 1/2" NPT(M)
- 3.3. Inductor package will have an equipment height of 58" (1,470 mm) minimum to 94.5" maximum (2,400 mm)
- 3.4. Inductor package will have a stroke of 36.6"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

Lion™ 450 - 25:1

Pumps
Piston



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

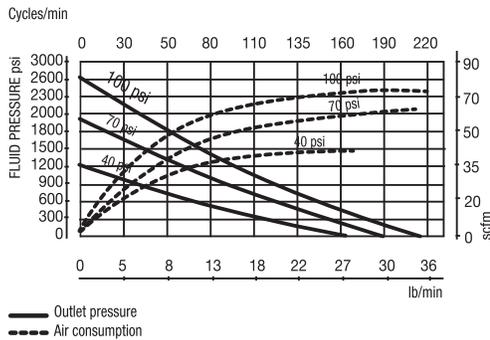
Fluids

- Grease up to NLGI-2
- High viscosity oil

Applications

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

TEST FLUID: NLGI-0



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-001	Lion™ 450 25:1 Grease 400 lb drum pump

TECHNICAL DATA	
Pump ratio	25:1
Continuous duty flow rate	13 lb/min (6 kg/min)
Cycles per lb	6
Maximum free flow @ 100 psi (7 bar)	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, UHMW-PE, 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.

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

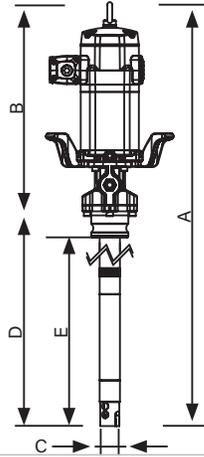
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, and Buna-N™

Warranty

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

Lion™ 450 - 40:1

Pumps
Piston



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				
45.25" (1,152 mm)	19.75" (502 mm)	2" (50 mm)	25.5" (650 mm)	N/A
1450-004				
39" (992 mm)	19.75" (502 mm)	2" (50 mm)	19.25" (490 mm)	16.25" (410 mm)

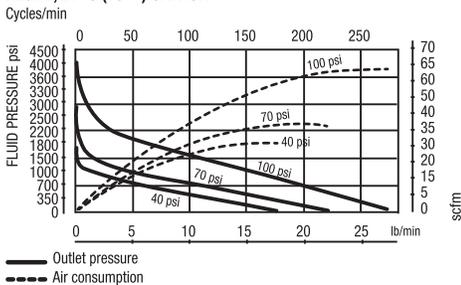
Fluids

- Grease up to NLGI-2

Applications

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

NLGI-2, 21 °C (70 °F) CAPACITY



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-003	Lion™ 450 40:1 grease 120 lb drum pump
<input type="checkbox"/> 1450-002	Lion™ 450 40:1 grease 400 lb drum pump
<input type="checkbox"/> 1450-004	Lion™ 450 40:1 grease bulk tote pump

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

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

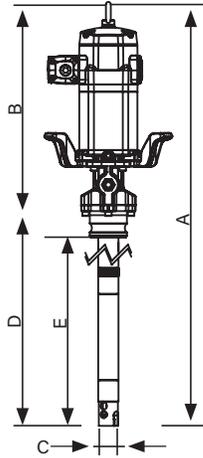
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™ and PTFE

Warranty

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

Lion™ 450 - 70:1

Pumps
Piston



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				
45.25" (1,152 mm)	19.75" (502 mm)	2" (50 mm)	25.5" (650 mm)	N/A
1450-007				
39" (992 mm)	19.75" (502 mm)	2" (50 mm)	19.25" (490 mm)	16.25" (410 mm)

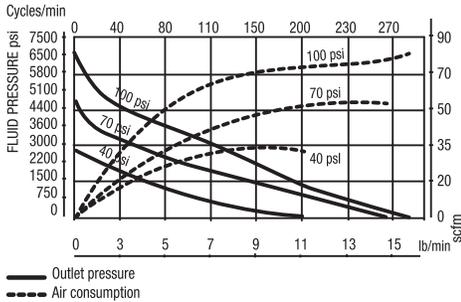
Fluids

- Grease up to NLGI-2

Applications

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

TEST FLUID: NLGI-2



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-006	Lion™ 450 70:1 grease 120 lb drum pump
<input type="checkbox"/> 1450-005	Lion™ 450 70:1 grease 400 lb drum pump
<input type="checkbox"/> 1450-007	Lion™ 450 70:1 grease bulk tote pump

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.

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

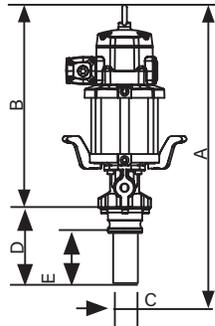
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™ and PTFE

Warranty

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

Lion™ 600 12:1

Pumps
Piston



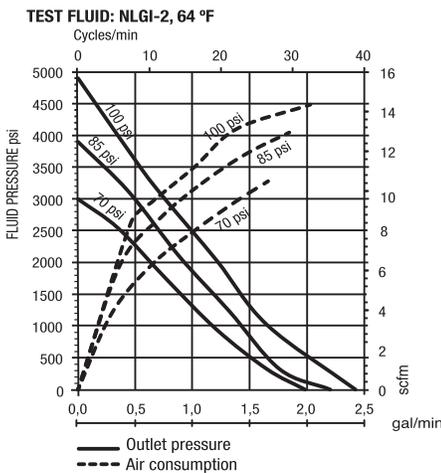
DIMENSIONS INCHES (MM)				
A	B	C	D	E
29" (742 mm)	20" (516 mm)	2.75" (70 mm)	9" (226 mm)	5.75" (146 mm)

Fluids

- Grease up to NLGI-2

Applications

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-010	Lion™ 600 12:1 grease bulk tote pump

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, UHMW-PE, Buna-N™, PTFE and Polyurethane
Noise level ⁽²⁾	80 dB
Service bulletin	SB 1142

(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.

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

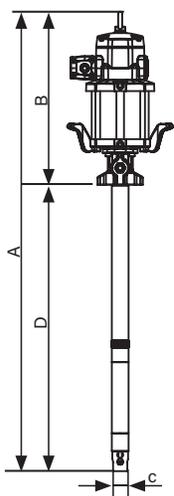
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™, PTFE and Polyurethane

Warranty

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

Lion™ 600 80:1

Pumps
Piston



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)

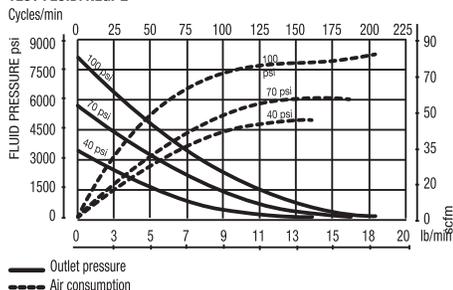
Fluids

- Grease up to NLGI-2

Applications

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

TEST FLUID: NLGI-2



Overview

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

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1450-009	Lion™ 600 80:1 grease 120 lb drum pump
<input type="checkbox"/> 1450-008	Lion™ 600 80:1 grease 400 lb drum pump

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, UHMW-PE, 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.

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

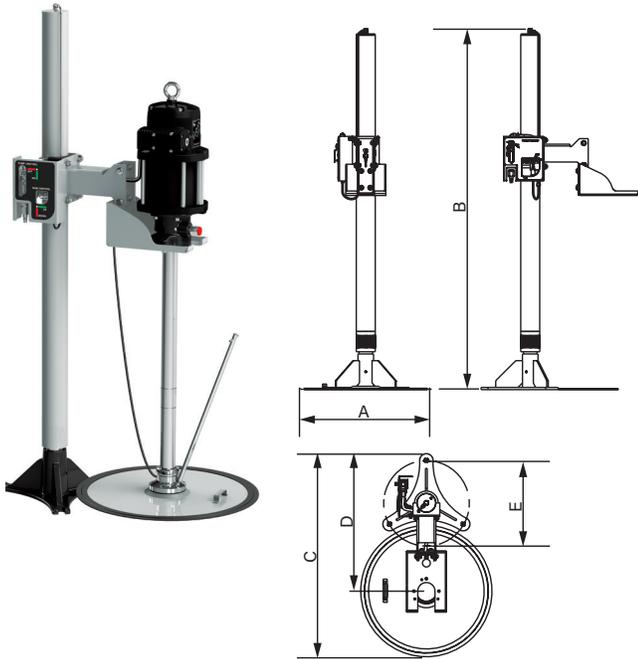
- 4.1. The wetted materials will consist of Cast Iron, Steel, Hard Chromed Steel, UHMWPE, Buna-N™ and PTFE

Warranty

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

Grease Inductor - Lion™ Inductor

Pumps
Piston



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)

Fluids

- NLGI #2 Grease

Applications

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

Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1451-004	Package, Lion™ 450, 40:1 Inductor Includes: 1450-002 Lion™ 450, 40:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate
<input type="checkbox"/> 1451-005	Package, Lion™ 450, 70:1 Inductor Includes: 1450-005 Lion™ 450, 70:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate
<input type="checkbox"/> 1451-006	Package, Lion™ 600, 80:1 Inductor Includes: 1450-008 Lion™ 600, 80:1 pump 4450-003 Inductor, Gravity, Pump Lift & follower plate

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.

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

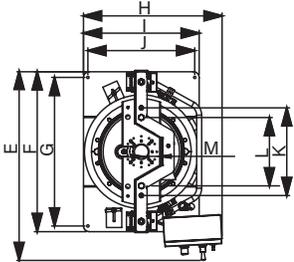
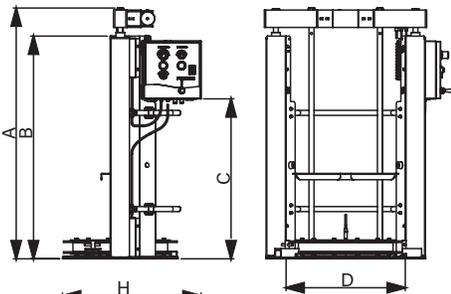
- 3.1. Inductor will have a 3" (75 mm) diameter of the pneumatic cylinder
- 3.2. Inductor will have an air inlet of 1/2" NPT(M)
- 3.3. Inductor will have a minimum of 58" (1,470 mm) and maximum of 94.5" (2,400 mm) height of equipment
- 3.4. Inductor will have a stroke of 36.6" (930 mm) of the pneumatic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

Pumps
Piston



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

Fluids

- NLGI #2 Grease
- NLGI #3 Grease

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 transfer
- Grease transfer

Overview

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

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 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
<input type="checkbox"/> 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
<input type="checkbox"/> 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
<input type="checkbox"/> 1451-007*	Package, Lion™ 600, 12:1 pump. Double Post Inductor. Includes: 1450-010 Lion™ 600, 12:1 pump, 4450-004 Double Post Inductor, 3" Cam-lock for mounting pump to inductor plate

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

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.

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 Pumps

Air Operated Double Diaphragm (AODD) Pump Description

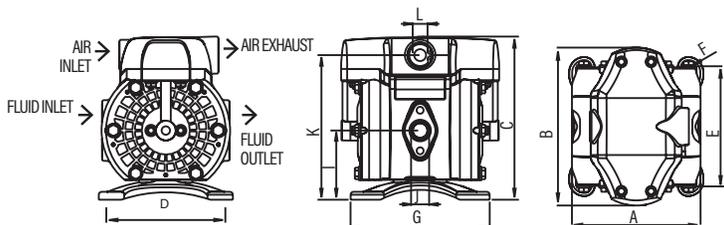
- 1.1. All CenterFlo AODD pumps will be a stall resistant design, manifold free, single molded pump body.
- 1.2. All CenterFlo AODD pumps will utilize a pressure differential in the air chambers to alternately create suction and positive fluid pressure in the fluid chambers, ball checks insure a positive 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.
- 1.8. All CenterFlo AODD pumps will be able to run dry without damage to seals or wetted parts.
- 1.9. All CenterFlo AODD pumps will have on-demand operation.
- 1.10. All CenterFlo AODD pumps will have a fluid path through the center of the pump.
- 1.11. All CenterFlo AODD pumps will use Frictionless Pivoting Air Valve (FPV) technology.
- 1.12. All CenterFlo AODD pumps will have check valves with ball cages which minimize pulsation and provide improved performance under system pressure.
- 1.13. 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
- 1.14. All CenterFlo AODD pumps will have a noise level below 80 db

Product Selection Matrix CenterFlo AODD Pumps

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/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 used oil	Fluid dispensing, transfer, and evacuation
CF15 SPECIALTY/MIXING						
<small>NOTE: both fluids and their resulting solution must be compatible with the pump wetted materials</small>						
15 GAL/MIN (50 L/MIN)	3/8" NPSM(F)	IN - 2-3/8" NPT(F) OUT - 1/2" NPT(F)	PTFE (Teflon)	Hytrel ⁺	1:1 solutions of water, Anti-freeze (Glycol), and windshield wash	Dual inlet pumps for 1:1 proportion mixing of fluids with similar viscosity
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)	Buna-N™	Buna-N™	Light viscosity fluids synthetic, mineral, oils, used oil, and diesel	Fluid dispensing, transfer, and evacuation
CF50 POLYPROPYLENE						
50 GAL/MIN (200 L/MIN)	3/8" NPSM(F)	1" NPT(F)FLANGE	Acetal	Hytrel ⁺	Diesel exhaust fluid, Anti-freeze, (Glycol) and windshield wash solution	Fluid dispensing and transfer
CF50 ALUMINUM						
50 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 and transfer
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
65 GAL/MIN (250 L/MIN)	1/2" NPSM(F)	1 1/2" NPT(F)	Buna-N™	Buna-N™	Light viscosity fluids synthetic, mineral, oils, used oil, and diesel	Fluid dispensing, transfer, and evacuation

CF10 Poly AODD Pump-CenterFlo

Pumps
AODD



DIMENSIONS INCHES										
A	B	C	D	E	F*	G	I	J	K	L
5.12	6.30	6.50	4.13	4.80	0.31	5.54	2.76	1/2"(F)	5.75	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)

Fluids

- Anti-freeze (Glycol)
- Windshield wash solution
- DEF

Markets Served

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

Overview

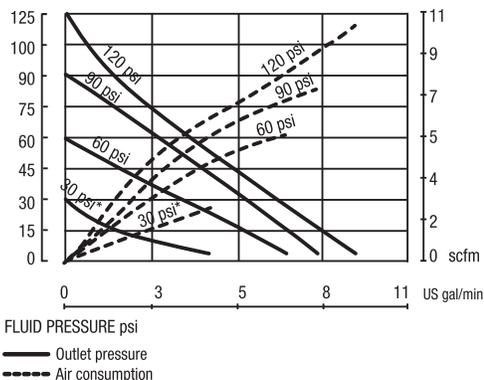
CenterFlo pumps can handle a wide range of fluids used for vehicle service.

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

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-029A	CF10 Polypropylene
<input type="checkbox"/> 1120-034	CF10 Polypropylene / DEF

TECHNICAL DATA	
Air inlet	3/8" NPSM(F)
Fluid inlet port	1/2" NPT(F) 1120-029A 1/2" BSPP(F) for DEF 1120-034
Fluid outlet port	1/2" NPT(F) 1120-029A 1/2" BSPP(F) for DEF 1120-034
Max. free flow	10 gal/min (38 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	Fluid dispensing, transfer, DEF, and evacuation
Service Bulletin	SB 1121

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



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

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

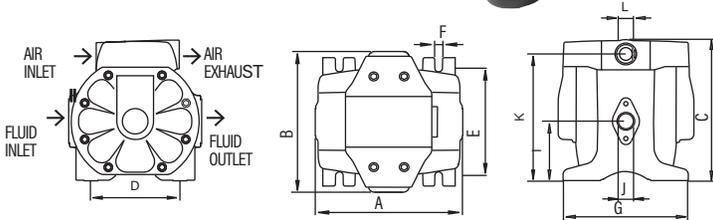
- 4.1. The wetted materials will consist of PTFE (Teflon[®]), Viton[®], Polypropylene, Stainless Steel, Acetal, and Hytrel[®]

Warranty

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

CF15 AODD Pump-CenterFlo

Pumps
AODD



DIMENSIONS INCHES FOR ALUMINUM PUMP										
A	B	C	D	E	F*	G	I	J	K	L
6.14	6.30	6.57	4.13	4.80	0.31	5.75	2.76	1/2" (F)	5.91	3/8" (F)
DIMENSIONS INCHES FOR POLYPROPYLENE PUMP										
6.14	6.30	7.28	4.13	4.80	0.31	5.54	3.27	1/2" (F)	6.54	3/8" (F)

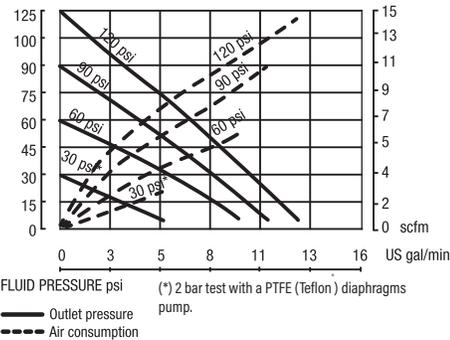
* Diameter of the holes for fasteners in each of the four pump feet.
Flange connection: 2 bolts - M 5 (1.61" between centers)

Fluids

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

Markets Served

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-023A	CF15 Polypropylene
<input type="checkbox"/> 1120-027	CF15 Aluminum
<input type="checkbox"/> 1120-025A	CF15 Polypropylene / DEF

TECHNICAL DATA	
Air inlet	3/8" NPSM(F)
Fluid inlet port	1/2" NPT(F) 1120-023A, 1120-027 1/2" BSPP(F) for DEF 1120-025A
Fluid outlet port	1/2" NPT(F) 1120-023A, 1120-027 1/2" BSPP(F) for DEF 1120-025A
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	
1120-023A - 1120-025A	PTFE (Teflon [®]), Viton [®] , polypropylene, stainless steel, and Hytrel [®]
1120-027	Aluminum, PTFE, Viton [®] , polypropylene, Buna-N [™] , and stainless steel
Recommended fluids	
1120-023A	Anti-freeze (Glycol) and windshield wash solution
1120-025A	Diesel exhaust fluid
1120-027	Light viscosity fluids, synthetic, mineral oils, anti-freeze, and used oil
Recommended Applications	Fluid dispensing, transfer, and evacuation
Service Bulletin	SB 1122

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

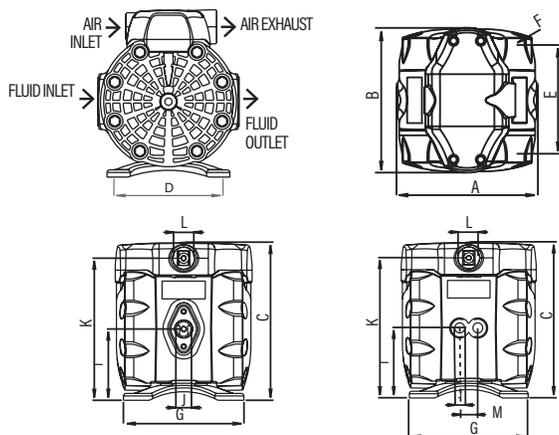
- 4.1. 1120-023A - 1120-025A PTFE (Teflon), Viton, Polypropylene, Stainless Steel, and Hytrel
- 4.2. 1120-027 Aluminum, PTFE, Viton, Polypropylene, Buna-N™, and Stainless Steel

Warranty

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

CF15 Mixing AODD Pump-CenterFlo

Pumps
AODD



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	

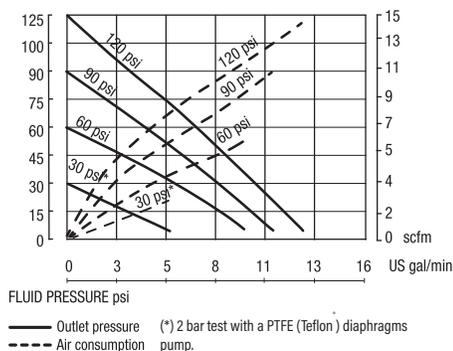
* Diameter of the holes for fasteners in each of the four pump feet.
Flange connection: 2 bolts - M 5 (1.61" between centers)

Fluids

- Anti-freeze (glycol)
- Windshield wash solution

Markets Served

- Car and truck dealers
- Quick lubes



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-028A	CF15 Polypropylene Mixing
<input type="checkbox"/> 3120-201	Pressure Relief for Diaphragm 1/2" NPT

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 1123

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

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

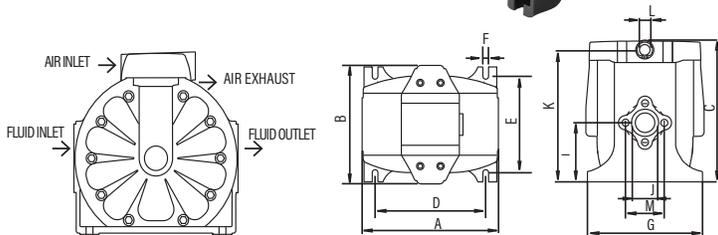
- 4.1. The wetted materials will consist of PTFE (Teflon), Viton, Polypropylene, Stainless Steel, Acetal, and Hytrel

Warranty

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

CF30 AODD Pump-CenterFlo

Pumps
AODD



DIMENSIONS INCHES FOR ALUMINUM PUMP											
A	B	C	D	E	F*	G	I	J	K	L	M
8.50	7.44	8.94	6.89	6.06	0.35	7.24	3.72	1" (F)	8.27	0.37" (F)	2.44**
DIMENSIONS INCHES FOR POLYPROPYLENE PUMP											
8.50	8.58	9.06	6.89	6.06	0.31	7.24	3.72	1" (F)	8.33	0.37" (F)	2.44**

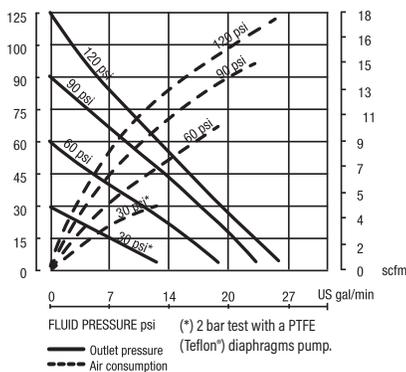
*Diameter of the holes for fasteners in each of the four pump feet.
**Flange connection: 4 bolts - M 10 (2.44" between centers).

Fluids

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

Markets Served

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-026A	CF30 Polypropylene
<input type="checkbox"/> 1120-040	CF30 Aluminum
<input type="checkbox"/> 1120-031A	CF30 Polypropylene/DEF

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

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

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

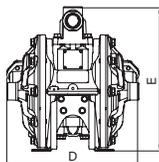
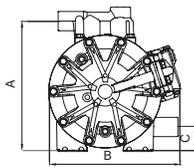
- 4.1. 1120-026A and 1120-031A PTFE (Teflon) Viton, Polypropylene, Stainless Steel, and Hytrel
- 4.2. 1120-024 Aluminum, Acetal Teflon, Buna-N™, Stainless Steel, and Hytrel

Warranty

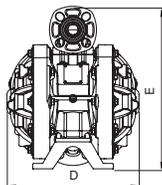
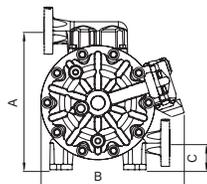
- 5.1. The CenterFlo AODD pump will have a 1-year standard warranty on defects in materials and workmanship only.

CF50 AODD Pump-CenterFlo

Pumps
AODD



DIMENSIONS INCHES (MM)				
A	B	C	D	E
11" (278)	11" (280)	2" (52)	11" (281)	12.13" (308)



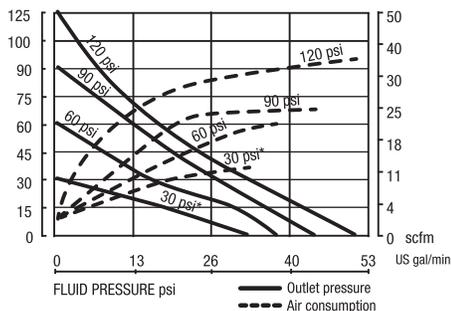
DIMENSIONS INCHES (MM)				
A	B	C	D	E
12.25" (311)	12.59" (320)	2.33" (60)	11.66" (295)	14.33" (364)

Fluids

- Used oil
- Used anti-freeze
- Synthetic and mineral based motor oils
- Windshield wash solution

Markets served

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



Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-037	CF50 Aluminum
<input type="checkbox"/> 1120-038	CF50 Polypropylene Includes: 4411-037 - Kit, Flange, CF50 Poly (2 pcs)

TECHNICAL DATA	
Air inlet	3/8" NPSM(F)
Fluid inlet port	1" NPT(F) 1120-037 / 1" ANSI flange B16.5 150 lb 1120-038
Fluid outlet port	1" NPT(F) 1120-037 / 1" ANSI flange B16.5 150 lbs 1120-038
Max. free flow	53 gal/min (200 l/min)
Air pressure range	22-102 psi (1.5-7 bar)
Solids in suspension	1/8" (3.2 mm)
Wetted Materials	
1120-037	Aluminum, Hytrel, acetal, Buna-N™, stainless steel
1120-038	PTFE (Teflon™), polypropylene, stainless steel, Hytrel™, FKN
Recommended Fluids	
1120-037	Light viscosity fluids, synthetic, mineral oils, anti-freeze, and used oil
1120-038	Windshield wash solution
Recommended Applications	Fluid dispensing, transfer, and evacuation
Service Bulletin	SB 1147

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

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 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

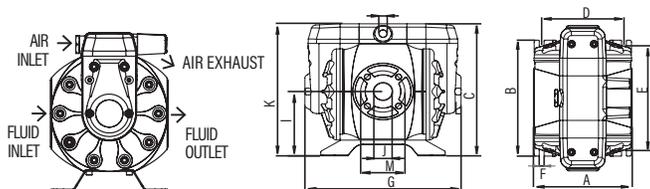
- 4.1. PTFE (Teflon), Polypropylene, Stainless Steel, Hytrel, FKM for 1120-037
- 4.2. Aluminum, Hytrel, Acetal, Buna-N™, Stainless Steel for 1120-038

Warranty

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

CF65 AODD Pump-CenterFlo

Pumps
AODD



DIMENSIONS INCHES											
A	B	C	D	E	F*	G	I	J	K	L	M
10.39"	12.20"	13.90"	8.66"	11.02"	0.51"	15.35"	6.77"	1.5" (F)	12.87"	0.5" (F)	4.33**

* Diameter of the holes for fasteners in each of the four pump feet.

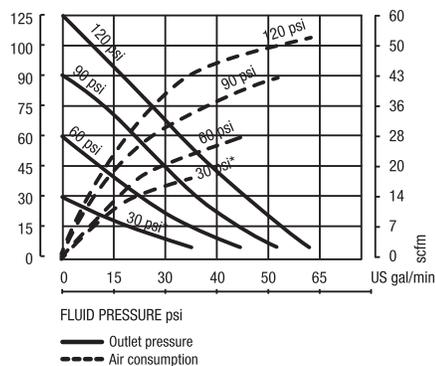
** ANSI B16.5 150 lb flange connection: 4 bolts - UNC 1/2" - 13 (3.87" between centers)

Fluids

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

Markets Served

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



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

Overview

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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-033	CF65 Diaphragm Pump
<input type="checkbox"/> 1120-039	CF65 Diaphragm Pump Buna-N™

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/mn)
Air pressure range	22-102 psi (1.5-7 bar)
Solids in suspension	1/4" (6 mm)
Wetted Materials	Aluminum, acetal, Buna-N™, 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.

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

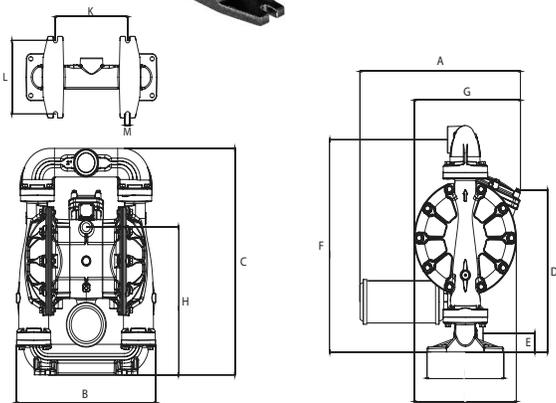
- 4.1. The wetted materials will consist of Aluminum, Acetal, Buna-N™, Stainless Steel

Warranty

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

TF170 AODD Pump-TraditionalFlo

Pumps
AODD



DIMENSIONS INCHES											
A	B	C	D	E	F	G	I	J	K	L	M
21.11"	18.31"	26.45"	18.89"	2.118"	24.79"	13.97"	13.25"	10.05"	10.08"	9.06"	0.59"

Overview

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

Balcrank's TraditionalFlo pump transfers fluid up to 170 gal/min. Combining conventional flow design with pivoting air valve for increased delivery and reliable performance.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-041	TF170 Aluminum

TECHNICAL DATA	
Air inlet	3/4" NPT(F)
Fluid inlet port	2" NPT(F)
Fluid outlet port	2" NPT(F)
Max. free flow	170 gal/min (605 l/min)
Air pressure range	22-115 psi (1.5-8 bar)
Solids in suspension	1/4" (6 mm)
Wetted Materials	Aluminum, Hytrel®, Viton®
Recommended Fluids	Anti-freeze (Glycol), windshield wash solution, lubricants, waste oil, waste fluid, used fluid and anti-freeze
Recommended Applications	Very large volume transfer, de-wattering and fluid evacuation
Service Bulletin	SB 1206

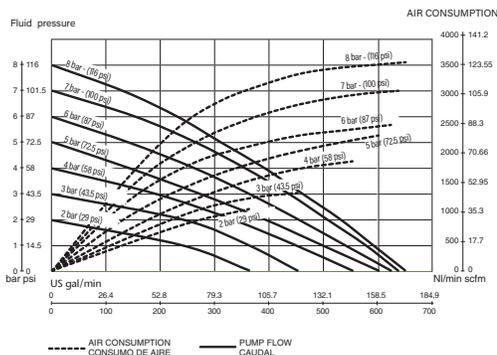
Fluids

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

Markets Served

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

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



TF170 AODD Pump-TraditionalFlo Description

TraditionalFlo pump is designed to handle a wide range of fluids in very large volume transfer and fluid evacuation applications. Balcrank's TraditionalFlo pump transfers fluid up to 170 gal/min. Combining conventional flow design with pivoting air valve for increased delivery and reliable performance.

CF65 AODD Pump-CenterFlo Models Available

- ☐ **1120-041** TF170 Aluminum

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 3/4" NPT(F)
- 3.3. AODD Pump will have a fluid inlet port of 2" NPT(F)
- 3.4. AODD Pump will have a fluid outlet port of 2" NPT(F)
- 3.5. AODD Pump will have a free flow of 170 gal/min (605 l/mn) based on 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 22-115 psi (1.5-8 bar)
- 3.7. AODD Pump will have a maximum size of suspended solids of 1/4" (6 mm)

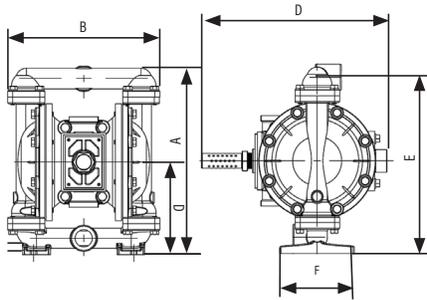
Materials

- 4.1. The wetted materials will consist of Aluminum, Hytrel®, Viton®

Warranty

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

AODD Pump-Conventional 1" UL



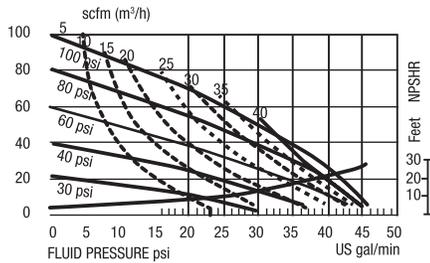
DIMENSIONS INCHES					
A	B	C	D	E	F
12.72"	10.25"	6.22"	12.5"	11.84"	5"

Fluids

- Light viscosity fluids
- Synthetic and mineral oils
- Diesel Fuel
- Used Fluids

Markets served

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



Overview

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

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

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1120-015S	1" UL Aluminum AODD Pump

TECHNICAL DATA	
Air inlet	1/2" NPT(F)
Fluid inlet port	1" NPT(F)
Fluid outlet port	1" NPT(F)
Max. free flow	45 gal/min (170 l/min)
Air pressure range	45 -100 psi (3-6.8 bar)
Solids in suspension	1/4" (6 mm)
Wetted Materials	Nitrile, neoprene, PTFE, polypropylene and polyethylene
Recommended fluids	Light viscosity fluids synthetic, mineral oils, and Diesel Fuel
Recommended applications	Fluid dispensing, transfer, and evacuation.
Service Bulletin	SB 1113

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

AODD Pump-Conventional 1" UL Description

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

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

AODD Pump-Conventional 1" UL Models Available

- ❑ **1120-15S** 1" UL Aluminum AODD Pump

AODD Pump-Conventional 1" UL Specifications

- 3.1. AODD Pump will have a 1:1 ratio
- 3.2. AODD Pump will have an air inlet port of 1/2" NPT(F)
- 3.3. AODD Pump will have a fluid inlet port of 1" NPT(F)
- 3.4. AODD Pump will have a fluid outlet port of 1" NPT(F)
- 3.5. AODD Pump will have a free flow of 45 gal/min (170 l/min) based on 100 psi (7 bar) air pressure
- 3.6. AODD Pump will have an operating air pressure of 45 -100 psi (3-6.8 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 Nitrile, Neoprene, PTFE, Polypropylene and Polyethylene

Warranty

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

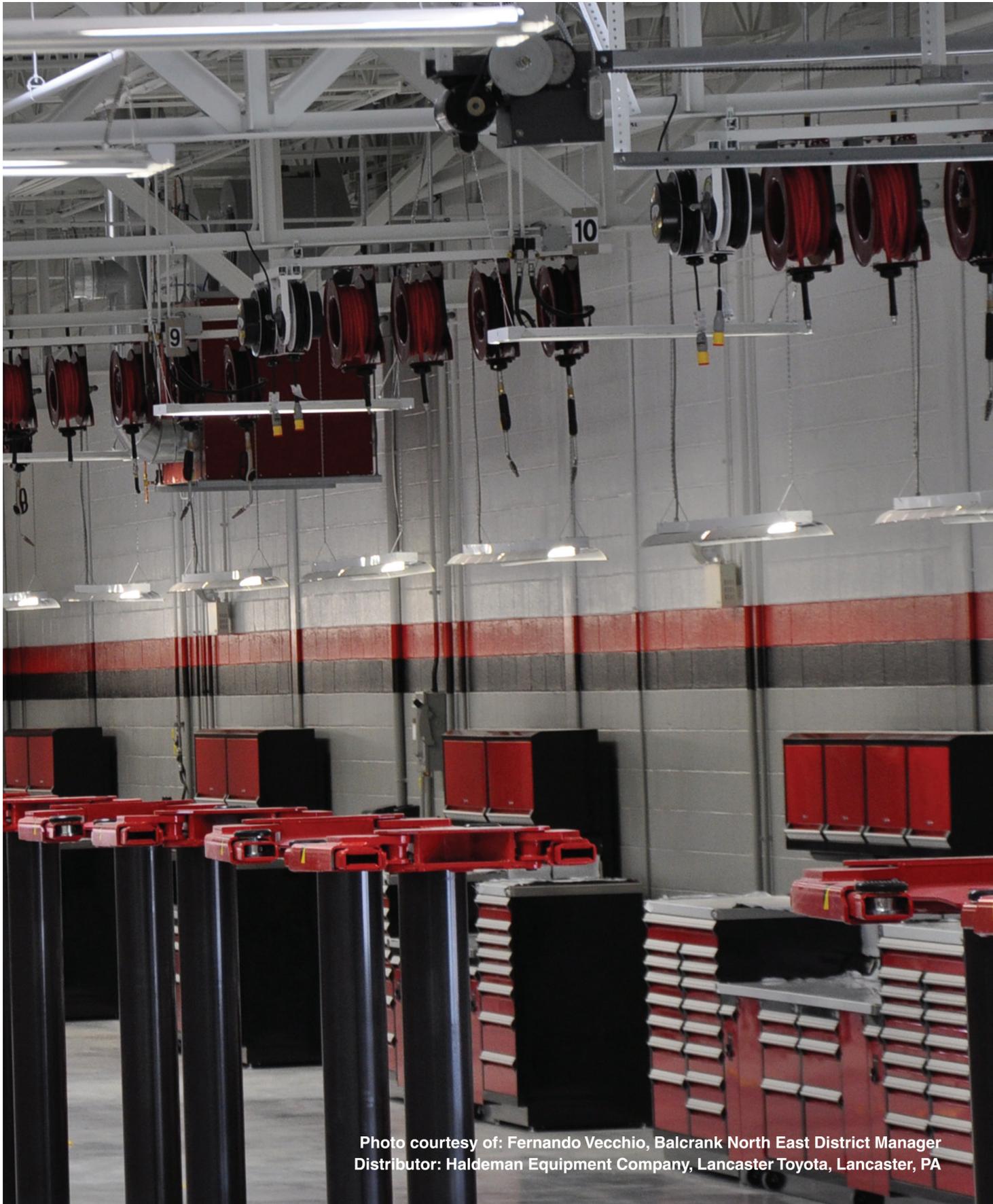


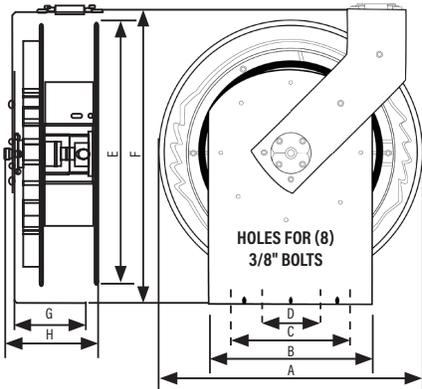
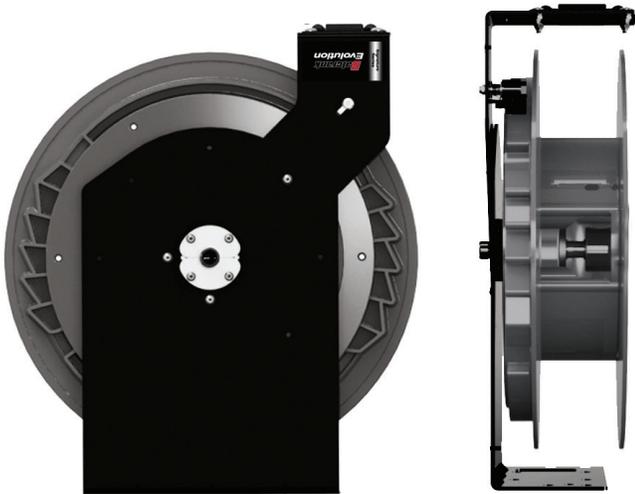
Photo courtesy of: Fernando Vecchio, Balcrank North East District Manager
Distributor: Haldeman Equipment Company, Lancaster Toyota, Lancaster, PA

Product Selection Matrix Signature Series Hose Reels

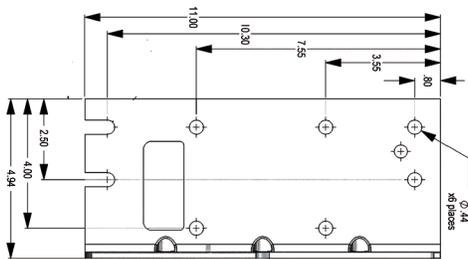
MAX. HOSE	CONSTRUCTION	RECOMMENDED MARKETS	RECOMMENDED APPLICATIONS	MOUNTING
EVOLUTION				
50' x 1/2"	Composite spool Steel pedestal Dual ball-bearings	Grease Small to medium dealerships Tire shops Transmission shops	Air/Water - low pressure Oil - medium pressure Grease - high pressure Enclosed models	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 Diesel - 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

Hose Reels

Signature Series Hose Reels - Evolution Series



DIMENSIONS INCHES							
A	B	C	D	E	F	G	H
18"	11"	9.5"	4"	18"	20"	5"	6.5"



Overview

Evolution Hose Reel: an Evolution in Design and Performance

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.

MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & water low pressure 300 psi (21 bar) for delivery of air, water, windshield wash fluid, and anti-freeze		
<input type="checkbox"/> 2140-021	Bare reel - up to 50' Hose	
<input type="checkbox"/> 2140-007	30' x 3/8" ID hose	8136-030
<input type="checkbox"/> 2140-008	50' x 3/8" ID hose	8136-050
<input type="checkbox"/> 2140-010	30' x 1/2" ID hose	8141-030
<input type="checkbox"/> 2140-011	50' x 1/2" ID hose	8141-050
Oil medium pressure 2,750 psi (190 bar) for delivery of lubricants		
<input type="checkbox"/> 2140-002	Bare reel - up to 50' Hose	
<input type="checkbox"/> 2140-013	30' x 1/2" ID hose	8241-030
<input type="checkbox"/> 2140-014	50' x 1/2" ID hose	8241-050
Grease high pressure 5,000 psi (345 bar) for delivery of grease		
<input type="checkbox"/> 2140-005	Bare reel - up to 50' Hose	
<input type="checkbox"/> 2140-019	30' x 3/8" ID hose	8332-030
<input type="checkbox"/> 2140-020	50' x 3/8" ID hose	8332-050

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
Service bulletin	SB 2025

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

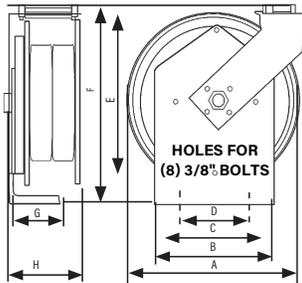
- 3.1. The wetted materials will consist of Brass, Acetal & Buna-N™ for low pressure
- 3.2. The wetted materials will consist of Steel (plated) & Buna-N™ for medium pressure
- 3.3. The wetted materials will consist of Nickel plated Steel, hardened Steel, and Polyethylene for high pressure

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).

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

Signature Series Hose Reels - Classic Series



DIMENSIONS INCHES							
A	B	C	D	E	F	G	H
16"	11"	9.5"	4"	16"	20"	5"	6-8"

Hose Reels

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)

STANDARD color	Special color 2-week lead-time					
Semi-gloss Black	Wt	Gr	Bl	Rd	Silver	Yl
-	-002	-003	-004	-005	-006	-007

Custom color 6-week lead time
based on specifications supplied by the customer

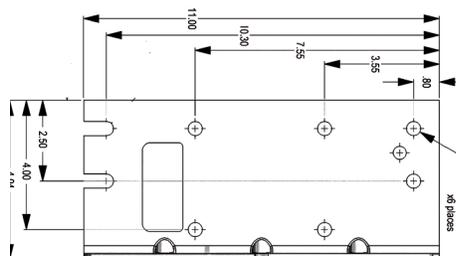
Overview

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 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, anti-freeze and windshield wash		
<input type="checkbox"/> 2120-016	Bare reel - up to 30' Hose	--
<input type="checkbox"/> 2120-017	Bare reel - up to 50' Hose	--
<input type="checkbox"/> 2120-014	30' x 3/8" ID hose	8136-030
<input type="checkbox"/> 2120-005	40' x 3/8" ID hose	8136-040
<input type="checkbox"/> 2120-015	50' x 3/8" ID hose	8136-050
<input type="checkbox"/> 2120-021*	30' x 3/8" ID hose. No arm	8141-030
<input type="checkbox"/> 2120-020	50' x 1/2" ID hose	8141-050
<input type="checkbox"/> 2120-025	30' x 3/8" ID hose- Nitrogen	8135-030
<input type="checkbox"/> 2120-026	50' x 3/8" ID hose- Nitrogen	8135-050
Oil medium pressure 2,750 psi (190 bar) for delivery of lubricants		
<input type="checkbox"/> 2120-016	Bare reel - up to 30' Hose	--
<input type="checkbox"/> 2120-017	Bare reel - up to 50' Hose	--
<input type="checkbox"/> 2120-011	30' x 1/2" ID hose	8241-030
<input type="checkbox"/> 2120-012	40' x 1/2" ID hose	8241-040
<input type="checkbox"/> 2120-013	50' x 1/2" ID hose	8241-050
<input type="checkbox"/> 2120-022*	16' x 1/2" ID hose. No arm	8241-016
Grease High pressure 5,000 psi (345 bar) for delivery of grease.		
<input type="checkbox"/> 2120-018	Bare reel - up to 30' Hose	--
<input type="checkbox"/> 2120-019	Bare reel - up to 50' Hose	--
<input type="checkbox"/> 2120-003	30' x 3/8"	--
<input type="checkbox"/> 2120-004	40' x 3/8" ID hose	8331-040
<input type="checkbox"/> 2120-007	50' x 3/8" ID hose	8331-050
<input type="checkbox"/> 2120-001	30' x 1/4" ID hose	8321-030
<input type="checkbox"/> 2120-002	40' x 1/4" ID hose	8321-040
<input type="checkbox"/> 2120-006	50' x 1/4" ID hose	8321-050

* Classic reel less outlet arm for workbench mounting
For specific windshield wash applications contact Balcrank Engineering for recommendations.



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

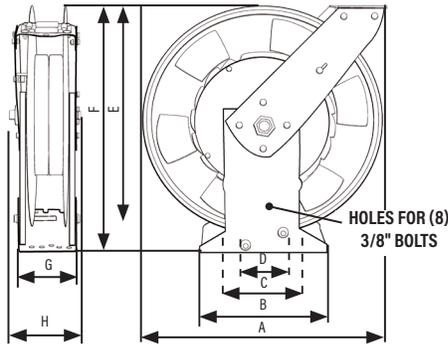
Warranty

- 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).

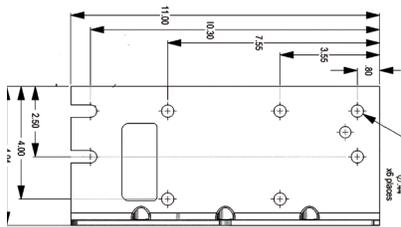
Custom Reels						
CUSTOM and SPECIAL color painted reels can add style to an installation and match OEM color schemes.						
Custom colors are available on all Classic open and enclosed reels. Balcrank's STANDARD paint color for reels is semi-gloss black.						
SPECIAL colors are available in: silver, 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

Hose Reels

Signature Series Hose Reels - Premium Series



DIMENSIONS INCHES							
A	B	C	D	E	F	G	H
20.5"	11"	9 1/2"	4"	20.25"	21.5"	5.5"	6.75"



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

Overview

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.

MODELS AVAILABLE	DESCRIPTION	REPLACEMENT HOSE
Air & Water Low Pressure 300 psi (21 bar) for delivery of air, water, anti-freeze and windshield wash**		

<input type="checkbox"/>	2111-048	Bare reel - up to 50' Hose	-
<input type="checkbox"/>	2111-049	Bare reel - up to 60' Hose	-
<input type="checkbox"/>	2111-031	30' x 3/8" ID hose	8136-030
<input type="checkbox"/>	2111-032	40' x 3/8" ID hose	8136-040
<input type="checkbox"/>	2111-033	50' x 3/8" ID hose	8136-050
<input type="checkbox"/>	2111-034	60' x 3/8" ID hose (50' + 10')*	8136-060
<input type="checkbox"/>	2111-035	40' x 1/2" ID hose	8141-040
<input type="checkbox"/>	2111-036	50' x 1/2" ID hose	8141-050
<input type="checkbox"/>	2111-037	60' x 1/2" ID hose (50' + 10')*	8141-060

Oil Medium Pressure 2,750 psi (190 bar) for delivery of lubricants		
--	--	--

<input type="checkbox"/>	2111-027	Bare reel - up to 50' Hose	-
<input type="checkbox"/>	2111-028	Bare reel - up to 60' Hose	--
<input type="checkbox"/>	2111-038	30' x 1/2" ID hose	8241-030
<input type="checkbox"/>	2111-039	40' x 1/2" ID hose	8241-040
<input type="checkbox"/>	2111-040	50' x 1/2" ID hose	8241-050
<input type="checkbox"/>	2111-041	60' x 1/2" ID hose (50' + 10')*	8241-060

Grease High-pressure 5,000 psi (345 bar) for delivery of grease.		
--	--	--

<input type="checkbox"/>	2111-029	Bare reel - up to 50' Hose	--
<input type="checkbox"/>	2111-030	Bare reel - up to 60' Hose	--
<input type="checkbox"/>	2111-045	40' x 3/8" ID hose	8332-040
<input type="checkbox"/>	2111-046	50' x 3/8" ID hose	8332-050
<input type="checkbox"/>	2111-047	60' x 3/8" ID hose (50' + 10')*	8332-060
<input type="checkbox"/>	2111-042	40' x 1/4" ID hose	8323-040
<input type="checkbox"/>	2111-043	50' x 1/4" ID hose	8323-050
<input type="checkbox"/>	2111-044	60' x 1/4" ID hose (50' + 10')*	8323-060

* 50' on spool with 10' hanging

** For specific windshield wash applications contact Balcrank Engineering for recommendations.

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 utilizes 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 resistants 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 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 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 facilitates 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

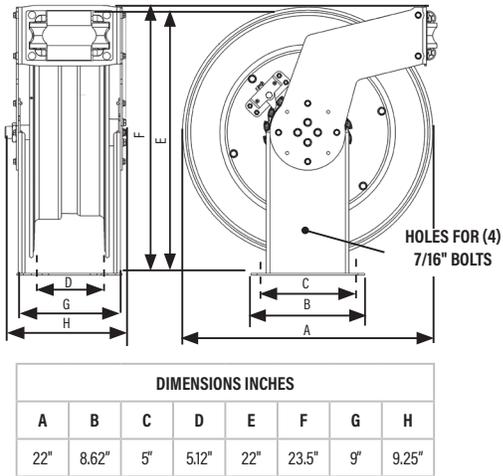
- 3.1. The wetted materials will consist of Brass, Acetal & Buna-N™ for low pressure
- 3.2. The wetted materials will consist of Steel (plated) & Buna-N™ for medium pressure
- 3.3. The wetted materials will consist of Nickel plated Steel, hardened Steel, and Polyethylene for high pressure

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).

Signature Series Hose Reels - EV Series

Hose Reels

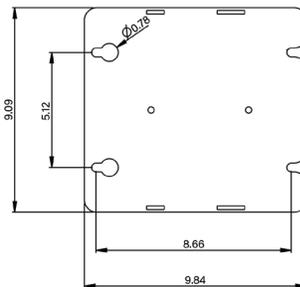


TECHNICAL DATA	
Diesel, Low & Medium Pressure Reels	
Fluid inlet port	3/4" NPT(F) swivel
Fluid outlet port	3/4" NPT(F) swivel
Hose outlet thread	1/2" NPT(M) for 1/2" ID Hoses
	3/4" NPT(M) for 3/4" ID Hoses
Wetted Materials	Nickel plated steel and Buna-N™
Service Bulletin	SB 2028
Low Pressure DEF Reels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

Overview

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		
<input type="checkbox"/> 2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
<input type="checkbox"/> 2310-027	65' x 1/2" ID hose	8141-065
<input type="checkbox"/> 2310-028	50' x 3/4" ID hose	8161-050
Oil Medium Pressure for delivery of lubricants		
<input type="checkbox"/> 2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
<input type="checkbox"/> 2310-031	50' x 3/4" ID hose 1,950 psi (135 bar)	8264-050
<input type="checkbox"/> 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		
<input type="checkbox"/> 2310-046	65' x 3/8" ID hose	8332-065
Diesel Low Pressure 50 psi (3 bar) for delivery of diesel		
<input type="checkbox"/> 2310-033	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
<input type="checkbox"/> 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		
<input type="checkbox"/> 2400-010	Bare reel - up to 65' x 1/2" or 50' x 3/4"	-
<input type="checkbox"/> 2400-011	50' x 3/4" ID hose	8569-050



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 fluid 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 facilitate 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

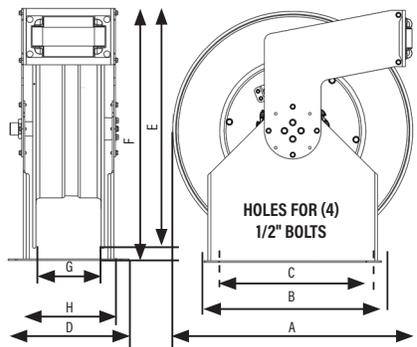
Warranty

- 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.

Signature Series Hose Reels - EVX Series

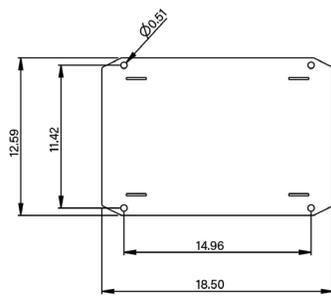


Hose Reels

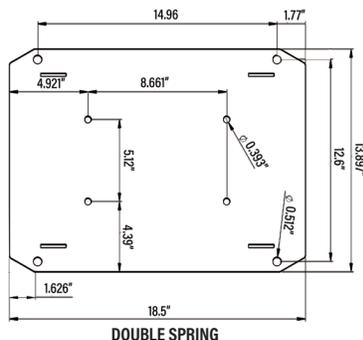


SINGLE SPRING DIMENSIONS INCHES							
A	B	C	D	E	F	G	H
25"	18.5"	15"	12.6"	25"	26.5"	7"	11.4"

DOUBLE SPRING DIMENSIONS INCHES							
A	B	C	D	E	F	G	H
25"	18.5"	15"	13.9"	25"	26.5"	8.5"	12.6"



SINGLE SPRING



DOUBLE SPRING

Overview

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		
<input type="checkbox"/> 2310-034	Bare reel, 50' x 1" ID hose or 75' x 1/2" ID hose	-
<input type="checkbox"/> 2310-035**	Bare reel, 75' x 3/4" ID hose or 100' x 1/2" ID hose	-
<input type="checkbox"/> 2310-036**	75' x 1/2" ID hose	8141-075
<input type="checkbox"/> 2310-037**	100' x 1/2" ID hose	8141-100
<input type="checkbox"/> 2310-038**	75' x 3/4" ID hose	8161-075
<input type="checkbox"/> 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		
<input type="checkbox"/> 2310-035**	Bare reel, 75' x 3/4" ID hose or 100' x 1/2" ID hose	-
<input type="checkbox"/> 2310-045**	50' x 1" ID hose 1,500 psi	8281-050
<input type="checkbox"/> 2310-041**	75' x 3/4" ID hose 1,525 psi	8264-075
<input type="checkbox"/> 2310-040**	100' x 1/2" ID hose 2,320 psi	8250-100
Diesel & Evacuation Low Pressure 50 psi (3 bar) for delivery of diesel fuel and used oil evacuation*		
<input type="checkbox"/> 2310-034	Bare reel, 50' x 1" ID hose or 75' x 1/2" ID hose	-
<input type="checkbox"/> 2310-043	50' x 1" ID hose Diesel	8481-050
<input type="checkbox"/> 2310-042	50' x 1" ID hose Evacuation	8181-050

* Verify they system design supports the use of an evacuation reel.
For specific windshield wash applications contact Balcrank Engineering for recommendations.
** 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

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 tangentially 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).

Signature Series Hose Reels - EVX+ Series



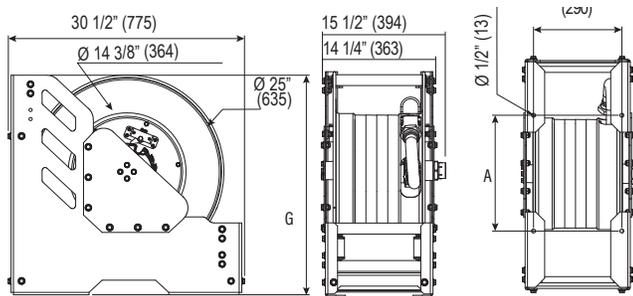
Overview

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.

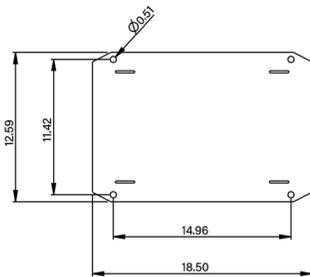
Hose not included

MODELS AVAILABLE	DESCRIPTION
	Air, Water, Diesel & Low Pressure Oil Transfer 580 psi (21 bar)
<input type="checkbox"/> 2310-047	Bare reel, 50' x 1 1/2" ID

Hose Reels



DIMENSIONS INCHES								
A	B	C	D	E	F	G	H	I
15"	0.5"	11.43"	30.5"	14.37"	25"	28.25"	15.5"	14.25"



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(F) for 1 1/2"
Wetted Materials	Steel, nickel plated steel, Nitrile rubber, nickel plated aluminum
Service Bulletin	SB 2040

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).

Signature Series Hose Reels - Enclosed Hose Reels

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



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



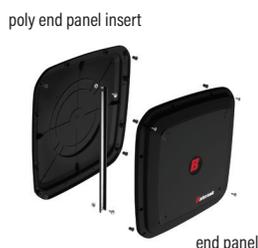
CHOOSE YOUR END PANEL KIT

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



Overview

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 provides 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

<input type="checkbox"/> 2230-003	Mounting Channel - 1 Reel
<input type="checkbox"/> 2230-004	Mounting Channel - 2 Reel
<input type="checkbox"/> 2230-005	Mounting Channel - 3 Reel
<input type="checkbox"/> 2230-007	Mounting Channel - 5 Reel
<input type="checkbox"/> 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.

Signature Series Hose Reels - Hose Reel Stands



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
<input type="checkbox"/> 2230-027	3 reel hose stand. Dimensions: 47 x 15.5 x 87.5 inches.
<input type="checkbox"/> 2230-028	5 reel hose stand. Dimensions: 68.9 x 15.75 x 86.6 inches.
<input type="checkbox"/> 2230-029	6 reel hose stand. Dimensions: 78 x 30 x 103 inches.

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 of the floor.

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



For large quantities check lead times with your Balcrank Representative.

Hose Reels



PRODUCT SELECTION MATRIX CONTROL HANDLES

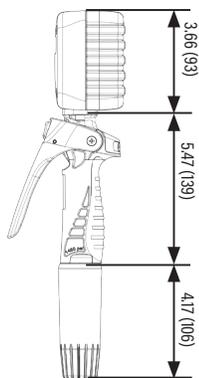
UNIT OF MEASURE	FLOW RANGE	MAX. PRESSURE	WEIGHT	RECOMMENDED FLUIDS
NON-METERED				
-	0.26 - 10.5 gal/min (1-40 l/min)	1,450 psi (100 bar)	3.30 lb (1.5 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze
DR SERIES METERED				
gallon quart pint liter	0.26 - 8 gal/min (1-30 l/min)	1,450 psi (100 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
CONTROL HANDLE FOR WATER BASED FLUIDS NON-METERED				
-	8 gal/min (30 l/min)	725 psi (50 bar)	1 lb (0.4 kg)	Anti-freeze, windshield wash solution, and water
CONTROL HANDLE METERED FOR WATER BASED FLUIDS METERED				
gallon quart pint liter	8 gal/min (30 l/min)	725 psi (50 bar)	2.2 lb (1kg)	Anti-freeze, windshield wash solution, and water
ELECTRONIC PRESET METERED				
gallon quart pint liter	0.25 - 10 gal/min (1-38 l/min)	1,000 psi (70 bar)	5.5 lb (2.5 kg)	Oil, transmission fluid, hydraulic fluid, and anti-freeze

Control
Handles

Control Handles - DR Series Metered Control Handle



833398 MULTI COLORED SET; RED, YELLOW, GREEN, BLUE (4 PCS)



Dimensions inches (mm)

Fluids

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

Markets Served

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

Overview

- Precision robotically machined Aluminum die-cast fluid chamber for repeatable accuracy
- Sealed battery compartment; 2 AAA batteries
- 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 repair-ability.

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE
Verify ID of ATF fill port for compatibility.		
<input type="checkbox"/> 3330-161	Flex Auto	3332-095
<input type="checkbox"/> 3330-157	Rigid 1/4 turn - OIL	3332-091
<input type="checkbox"/> 3330-158	Flex 90 1/4 turn - OIL	3332-092
<input type="checkbox"/> 3330-159	Flex-memory 1/4 turn - OIL	3332-093
<input type="checkbox"/> 3330-169	Rigid 1/4 turn - ATF	3332-101
<input type="checkbox"/> 3330-172	Flex-memory 1/4 turn - ATF	3332-104
<input type="checkbox"/> 3330-166	DR bare	-

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

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.

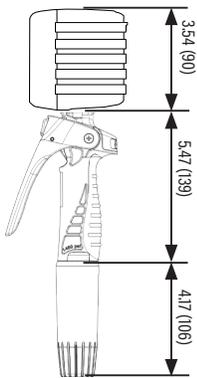
Materials

- 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 Series Metered Control Handle



Dimensions inches (mm)



833398 MULTI COLORED SET; RED, YELLOW, GREEN, BLUE (4 PCS)

Overview

- 6-digit totalizer; keeps lifetime record of volume dispensed in gallons
- Meter with odometer display, works without batteries and performs well in all environments
- 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

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

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, Buna-N™, Zinc plated steel, TPU, Polyamide
Service Bulletin	SB 3113

Fluids

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

Markets Served

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

Control Handles - MO Series Metered Control Handle

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)

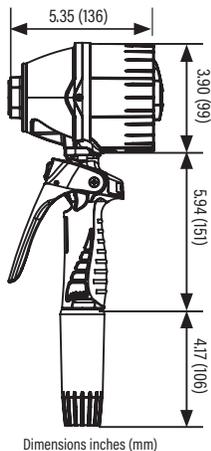
Materials

- 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 (Mechanical Registry Meter)



Fluids

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

Markets Served

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

Overview

- One piece molded pointer knob is resistant to impacts
- No calibration required; precision machined metering chamber assures repeatable accuracy
- Viscosity and temperature change does not affect 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

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE U/M
Verify ID of ATF fill port for compatibility.		
<input type="checkbox"/> 3330-189	Rigid 1/4 turn-OIL	3332-091 Qt
<input type="checkbox"/> 3330-192	Flex Memory 1/4 turn-OIL	3332-093 Qt
<input type="checkbox"/> 3330-196	Flex Memory 1/4 turn-ATF	3332-104 Qt
<input type="checkbox"/> 3330-177	Rigid 1/4 turn-OIL	3332-091 L
<input type="checkbox"/> 3330-180	Flex Memory 1/4 turn-OIL	3332-093 L
<input type="checkbox"/> 3330-184	Flex Memory 1/4 turn-ATF	3332-104 L
<input type="checkbox"/> 3330-202	MR Bare	L
<input type="checkbox"/> 3330-203	MR Bare	Q

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

Control Handles - MR (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.

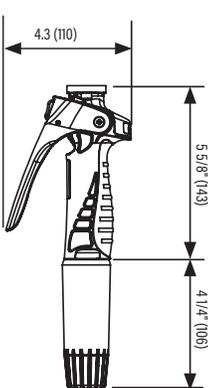
Warranty

- 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 - Non-Metered



Dimensions inches (mm)



833398 MULTI COLORED SET; RED, YELLOW, GREEN, BLUE (4 PCS)

833398RD RED - 1 EACH

833398YL YELLOW - 1 EACH

833398BL BLUE - 1 EACH

833398GR GREEN - 1 EACH

833398BK BLACK - 1 EACH

Fluids

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

Markets Served

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

Overview

- 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.

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

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

Non-Metered Control Handles Description

- 1.1. Non-metered control handle will have a 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.

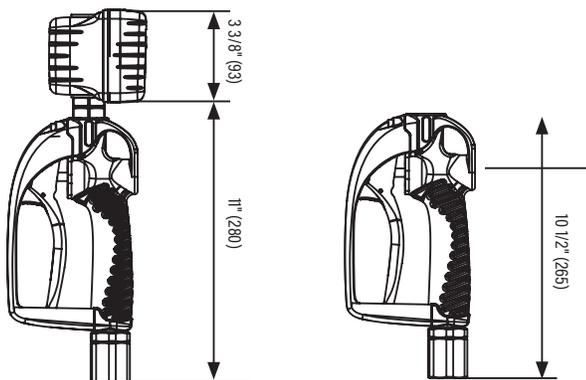
Materials

- 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 - HighFlo



Dimensions inches (mm)

Fluids

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

Markets Served

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

Overview

- 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.

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

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

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 - Water based Fluids



Fluids

- Anti-freeze (Glycol)
- Windshield wash solution
- Water

Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets

Overview

- Reinforced polyamide body and stainless Steel valve mechanism.
- Ergonomic-grip.
- Includes Brass inlet swivel 1/2" NPT(F), flex-90 extension and a 1/4 turn manual tip.

MODELS AVAILABLE	EXTENSION TYPE & NOZZLE	EXTENSION CODE
<input type="checkbox"/> 3320-055	Flex 90 1/4 turn - oil	3332-102
<input type="checkbox"/> 3330-201	Metered - Flex 90 1/4 turn - oil	3332-102

TECHNICAL DATA

	NON METERED	METERED
Units of measure	-	Batch: Quarts, Pints, Gallons and Liters (in 0.01 increments)
Accuracy	-	+/- 0.5% of reading (lubricating oils)
Flow Rate	8 gal/min (30 l/min)	
Maximum pressure	725 psi (50 bar)	
Swivel Inlet	1/2" NPT(F)	
Dispense Nozzle OD	Manual 1/4 turn for OIL = 0.705"	
Operating Temperature	122 °F (50 °C)	
Weight	1 lb (0.4 kg)	2.2 lb (1 kg)
Compatible Fluids	Anti-freeze, windshield wash solution, and water	
Wetted Materials	Fiberglass reinforced thermoplastic, polyurethane rubber, and brass	Fiberglass reinforced thermoplastic, polyurethane rubber, Viton®, brass, and stainless steel
Service Bulletin	SB 3105	

Water based Control Handles Description

- 1.1. Reinforced polyamide body and stainless Steel valve mechanism.
- 1.2. Ergonomic-grip.
- 1.3. Includes Brass inlet swivel 1/2" NPT(F), flex-90 extension and a 1/4 turn manual tip.

Water based Control Handles Specifications:

- 2.1. All Water based fluid metered control handles will measure in liters, quarts, pints and gallons
- 2.2. All Water based fluid metered control handles will have a measurement accuracy of +/- 0.5%
- 2.3. All Water based fluid control handles will have a flow rate of 8 gal/min (30 l/min)
- 2.5. All Water based fluid control handles have a maximum working pressure of 725 psi (50 bar)
- 2.6. All Water based fluid control handles have a swivel inlets of 1/2" NPT(F)
- 2.7. All Water based fluid control handles will have an operating temperature of 122 °F (50 °C) and be suitable for extreme temperature conditions
- 2.8. All Water based fluid non-metered control handles will weigh 1 lb (0.4 kg)
- 2.9. All Water based fluid metered control handles will weigh 2.2 lb (1 kg)

Materials

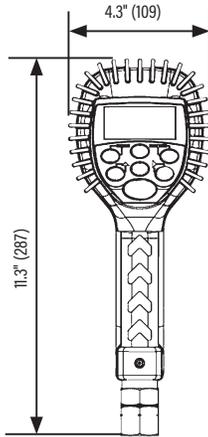
The wetted materials will consist of

- 3.1. Metered Fiberglass reinforced thermoplastic, Polyurethane rubber, Viton, Brass, and stainless Steel
- 3.2. Non-Metered Fiberglass reinforced thermoplastic, Polyurethane rubber, and Brass

Warranty

- 4.1. All Water based 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)



Fluids

- Anti-freeze (Glycol)
- Windshield wash solution
- Water

Markets Served

- Car and truck dealers
- Fast lube and maintenance shops
- Fleets

Overview

- Reinforced polyamide body and stainless Steel valve mechanism.
- Ergonomic-grip.
- Includes Brass inlet swivel 1/2" NPT(F), flex-90 extension and a 1/4 turn manual tip.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 3331-028	Bare
<input type="checkbox"/> 3331-029	Rigid Hi-Flow
<input type="checkbox"/> 3331-030	Flex Hi-Flow

TECHNICAL DATA

Units of measure	Quarts, pints, gallons, liters
Accuracy	+/- 0.5 %
Flow Rate	0.25-10 gal/m (1-38 l/m)
Maximum pressure	1,000 psi (70 bar)
Swivel Inlet	1/2" NPT(F)
Battery	4 x alkaline "AA"
Weight	5.5 lb (2.5 kg)
Compatible Fluids	Oil, transmission fluid, hydraulic fluid, and anti-freeze
Wetted Materials	Acetal, stainless steel, Buna-N™, brass, polyurethane
Service Bulletin	SB 3109

Control Handles - EP Meter (Electronic Preset Meter)

EP Meter Control Handles Description

- 1.1. Reinforced polyamide body and stainless Steel valve mechanism
- 1.2. Ergonomic-grip
- 1.3. Includes Brass inlet swivel 1/2" NPT(F), flex-90 extension and a 1/4 turn manual tip

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%
- 2.1. All EP Meter control handles will have a maximum pressure of 1,000 psi (70 bar)
- 2.2. All EP Meter control handles will have a swivel inlets of 1/2" NPT(F)
- 2.3. All EP Meter control handles will have a flow rate of 0.25-10 gal/min (1-38 l/min)
- 2.8. All EP Meter control handles will have a power source is four alkaline 1.5v "AA" battery size
- 2.9. All EP Meter control handles will weigh 5.5 lb (2.5 kg)

Materials

- 3.1. The wetted materials will consist of Acetal, stainless Steel, Buna-N™, Brass, Polyurethane

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	DIRECTOR JR.	FUSION 2.4 CCS	FUSION 2.4 DCS	SYNERGY	TM CONTROL
Max. number of dispense points	10	30	250	255	
Max. number of fluids	1	8	16	Unlimited	4
Fluid names		✓	✓	✓	
Number of keypads	1	1	36	Unlimited	
Job number validation			✓	✓	
Job numbers		✓	✓	✓	
Simultaneous keypad operation			✓	✓	
Simultaneous dispense		✓	✓	✓	
Max. number of tanks		8	16	Unlimited	4
Calculated tank declining balance		✓	✓	✓	
Real-time tank monitoring				✓	
Tank report over e-mail			✓	✓	
PIN code validation		✓	✓	✓	
Operation PIN codes		✓	✓	✓	
Max. number of PINs		50	250	Unlimited	
Extensive user permission configuration				✓	
Preset volumes	✓	✓	✓	✓	
Hose Reel ID	✓	✓	✓	✓	
Operator names		✓	✓	✓	
Dispense from keypads	✓	✓	✓	✓	
Dispense from PC				✓	
Client / Network installer			✓	✓	
Max. number of transaction history		1,200	Unlimited	Unlimited	
Print reports		✓	✓	✓	
Print receipt		✓		Local / Network	
Custom reports			✓	✓	
Bar Code / Card reader / Dallas Key				✓	
Wireless		✓	✓		

Overview

Director Jr. manages 1 fluid for up to 10 dispense points. Simple, easy to install and use, the Director Jr. has been in use since 1987. Typical customers include small garages, dealerships, and small equipment service.



MODEL AVAILABLE

<input type="checkbox"/> 3110-031	Director Jr Console V DC
-----------------------------------	--------------------------

COMPONENT TECHNICAL DATA

Function	Monitor and control fluid dispense
Requirements & Limitations	non-shielded (for use with solenoid) shielded (for use with impulse meter) 18 gauge wire up to 400' 16 gauge wire 400'-600'
Power	Input -110 VAC - Output - 24 V DC

Director Jr. Description

- 1.1. The Director Jr. is a console designed to monitor and control fluid dispenses in a workshop from a single central location
- 1.2. The Director Jr. will also manage a solenoid valve to control the air powering the pump.
- 1.3. 1 fluid to 10 stations.
- 1.4. Fluid measurement in pints, quarts, gallons, or liters.
- 1.5. Service fluids: motor oils, synthetics, ATF, gear oils, and Anti-freeze (Glycol).
- 1.6. Totalizing feature for ease of fluid inventory record-keeping.
- 1.7. Large LED information display.

Contact Balcrank customer service for V AC units.

Director Jr. Specifications:

- 2.1. All Director Jr. consoles will monitor and control a single fluid dispense
- 2.2. All Director Jr. consoles will have 18 gauge wire up to 400' and non-shielded 16 gauge wire from 400' to 600'
- 2.3. All Director Jr. consoles will have 110 VAC power input and 24 VDC power output
- 2.4. All Director Jr. consoles will require the use of Balcrank air solenoid valves, fluid solenoid valves and impulse meter 3120-114 to complete a Director Jr. system.

Warranty

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

Fluid Inventory Control - Fusion 2.4 CCS



Overview

- Wirelessly controls and manages up to 8 fluids and 30 dispense locations.
- Easy/fast entry of authorized PIN codes and job information on a Central Dispense Keypad.
- Easy dispense and fast completion of work order.
- Built in ticket printer produces a detailed written record for each work order dispensed.
- Allows for future expansion of fluids and/or dispense locations.
- Wireless fusion 2.4 control handles are the building blocks of both the fusion 2.4 CCS & DCS systems.

MODEL AVAILABLE

<input type="checkbox"/>	3110-026	Central Control Keypad
--------------------------	-----------------	------------------------

Component Technical Data

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	2-way 2.4 GHz radio communication Tank measurements are; quarts, liters, Pints, and gallons Operating Temp.: 14 °F to 140 °F (-10 °C to 60 °C) (Indoor usage only) fusion 2.4 systems may not work with cordless phones, or other electronic devices operating within the same frequency range
Power	Input-110 VAC, 50/60 Hz

Description:

- Wirelessly controls and manages up to 8 fluids and 30 dispense locations.
- Easy/fast entry of authorized PIN codes and job information on the Central Control Keypad.
- Easy dispense and fast completion of work order.
- Built in ticket printer produces a detailed written record for each work order dispensed.
- Allows for future expansion of fluids and/or dispense locations.
- Wireless fusion 2.4 control handles are the building blocks of both the fusion 2.4 CCS & DCS systems.

Specifications

- 2.1. Keypad will utilize communication in a 2-way 2.4 GHz frequency hopping spread spectrum
- 2.2. Keypad will measure in quarts, liters, pints, and gallons
- 2.3. Keypad will be 110 VAC, 60 Hz
- 2.4. Keypad will have an operating temperature range of 14°F to 140°F (-10°C to 60°C) (indoor usage only)
- 2.5. Control handle will have a fluid inlet port of ½" NPT (F)
- 2.6. Control handle will have a max flow rate of 10 Gal/m (38 l/min)
- 2.7. Control handle will have a max operating pressure of 1,000 psi (70 bar)
- 2.8. Control handle will have a measuring accuracy of +/- 0.5%

Materials

- 3.1. The wetted materials will consist of Aluminum, acetal, Steel, Zinc-plated Steel, and Buna-N™

Warranty

- 4.1. The Keypad will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).
- 4.2. Handle will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).



Overview

- Wirelessly controls and manages up to 16 fluids, 250 dispense locations, and 36 keypads.
- Add fluid and/or dispense capacity at any time.
- Easy/fast entry of authorized PIN codes and job information on a Wireless Dispense Keypad.
- Easy dispense and fast completion of work order.
- Generate reports by product, by vehicle, by work order, or by technician.
- Monitor inventory levels from your PC.
- Operator and manager security levels.

MODELS AVAILABLE

<input type="checkbox"/>	3110-027	Master Keypad
<input type="checkbox"/>	3110-028	Dispense Keypad
<input type="checkbox"/>	3110-029	Dispense Keypad w/Built in Printer

Component Technical Data

Function	Wirelessly monitor and control fluid dispense
Requirements & Limitations	2-way 2.4 Ghz radio communication Tank measurements are; quarts, liters, pints, and gallons Operating Temp.: 14 °F to 140 °F (-10 °C to 60 °C) (Indoor usage only) fusion 2.4 systems may not work with cordless phones, or other electronic devices operating within the same frequency range
Power	Input-110 VAC, 50/60 Hz

Description:

- 1.1. Wirelessly controls and manages up to 16 fluids, 250 dispense locations, and 36 keypads.
- 1.2. Add fluid and/or dispense capacity at any time.
- 1.3. Easy/fast entry of authorized PIN codes and job information on a Wireless Dispense Keypad.
- 1.4. Easy dispense and fast completion of work order.
- 1.5. Generate reports by product, by vehicle, by work order, or by technician.
- 1.6. Monitor inventory levels from your PC.
- 1.7. Operator and manager security levels.

Specifications

- 2.1. Keypad will utilize communication in a 2-way 2.4 GHz frequency hopping spread spectrum
- 2.2. Keypad will measure in quarts, liters, pints, and gallons
- 2.3. Keypad will be 110 VAC, 50/60 Hz
- 2.4. Keypad will have an operating temperature range of 14°F to 140°F (-10°C to 60°C)
- 2.5. Control handle will have a fluid inlet port of ½" NPT (F)
- 2.6. Control handle will have a max flow rate of 10 Gal/m (38 l/min)
- 2.7. Control handle will have a max operating pressure of 1,000 psi (70 bar)
- 2.8. Control handle will have a measuring accuracy of +/- 0.5%

Materials

- 3.1. The wetted materials will consist of Aluminum, acetal, Steel, Zinc-plated Steel, Buna-N™, and EPDM for water based solutions and brake fluid applications.

Warranty

- 4.1. Keypad will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).
- 4.2. Handle will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).

Fluid Inventory Control - Fusion 2.4 Control Handles



Overview

- The fusion 2.4 RF Control Handle is equipped with RF (radio frequency) communications to communicate with a fluid management system keypad to get authorization and dispense information.
- The meter can also be run as a standard Electronic Preset Meter (EPM). This is intended for start-up purposes or when the fluid management system is not in use.

MODELS AVAILABLE

<input type="checkbox"/>	3331-021	Handle for oil and anti-freeze bare
<input type="checkbox"/>	3332-083	Rigid Hi-Flow w/Semi-Auto Lock Nozzle
<input type="checkbox"/>	3332-084	Flex Hi-Flow w/Semi-Auto Lock Nozzle

COMPONENT TECHNICAL DATA

Function	To dispense fluid
Requirements & Limitations	Min./Max. Flow .25-10 gal/min (1-38 l/min)
	Max. Operating Pressure 1,000 psi (70 bar)
	Meter Accuracy +/- 0.5% - oil +/- 1.5% Anti-freeze (Glycol)
	LCD Display 5 char; 0.40"H x 0.20"W
	Units of Measurement Quarts, Pints, Gallons, and Liters
	Inlet/Outlet 1/2" NPT
Power	fusion 2.4 control handles are compatible with Oil, ATF, Anti-freeze, and diesel fuel. 4 - "AA" batteries

Description:

- 1.1. The fusion 2.4 RF Control Handle is equipped with RF (radio frequency) communications to communicate with a fluid management system keypad to get authorization and dispense information.
- 1.2. The meter can also be run as a standard Electronic Preset Meter (EPM). This is intended for start-up purposes or when the fluid management system is not in use.

Specifications

- 2.1. Control handle will have a fluid inlet port of 1/2" NPT (F)
- 2.2. Control handle will have a min./max flow rate of .25-10 gal/min (1-38 l/min)
- 2.3. Control handle will have a max operating pressure of 1,000 psi (70 bar)
- 2.4. Control handle will have a measuring accuracy of +/- 0.5% for oil and +/- 1.5% for Anti-freeze (Glycol)
- 2.5. Control handle will have units of measure in Quarts, Pints, Gallons, and Liters
- 2.6. Control handle will require 4 replaceable "AA" batteries.
- 2.7. Control handle will be compatible with Oil, ATF, Anti-freeze, windshield washer fluid, and diesel fuel.

Materials

- 3.1. The wetted materials will consist of Aluminum, acetal, Steel, Zinc-plated Steel, and Buna-N™

Warranty

- 4.1. Handle will have a 1-year parts, labor, and mileage warranty (defects in materials and workmanship only).
- 4.2. Handle components will have a 1-year replacement only warranty (defects in materials and workmanship only).



FIC



System Description

Flexibility and Performance

Synergy is simple to use and offers outstanding performance. It is very easy to customize to your unique needs for control of oil, anti-freeze (Glycol) and more. With Synergy, you will have full control of all liquid consumption for vehicle service and industrial applications.

Intelligent Modules with Easy Integration

The system uses intelligent modules, which offer a variety of adaptations in the software. Synergy can be installed in both existing and new facilities. The system provides precise metering and dispensing of fluids. Multilingual, English, Spanish, and French.

Remote Access

The remote keypads are designed to be located in strategic places allowing remote entry of PIN ID, job or work order number, and amount of fluid to be dispensed at any given location. A Minimum of 1 keypad is required to operate a system, but there is no limit for the total number of keypads in the system. Any dispense can be initiated from any keypad.

System Control

The Multi-Point Dispense Module (MPDM) controls the amount of fluid ordered from any keypad or PC in the entire system. One module controls up to 4 outlets and offers a keyed manual override. Every outlet port can be given unique functions:

- Pin code
- Volume
- Time-out
- Job number
- Group access
- Pulse per unit
- Display information
- Minimum/maximum volume

SYNERGY installation must be performed by a Balcrank Synergy Certified Distributor. Contact your Balcrank representative for additional information.

Synergy Module Configurations are Unlimited

- 3110-017 Multi-Point Dispense Module
- 3110-016 Standard Key Pad
- 3110-019 PC Interface Module
- 3110-020 Tank Control Module
- 3110-021 Tank Surveillance Module
- 3120-068 LED Display
- 3110-018 Printer Module
- 3120-117 Meter Solenoid Valve Kit for Oil/ Anti-freeze
- 3120-074 Meter Solenoid Valve Kit for Grease
- 3120-075 Meter Solenoid Valve Kit for Diesel
- 3120-077 Meter Solenoid Valve Kit for WW Fluid
- 3120-078 Meter Solenoid Valve Kit for DEF
- 3120-072 Professional Software

Description:

The Balcrank Synergy Fluid Management System will assist facilities in precision metering, dispensing fluid from bulk tanks, hose reels, and mobile units, and the management of fluids.

- Synergy systems will control up to 255 outlets
- Synergy systems will manage an unlimited number of fluids, keypads, and job number validations
- Synergy systems will manage simultaneous dispense locations: dispensing anywhere from keypads and PC clients
- Synergy systems will have real-time flexible tank monitoring and integration
- Synergy systems will control a variety of fluids including detergents, cleaning fluids, synthetic oils, mineral-based oil and grease, anti-freeze, windshield washer fluid, diesel, and diesel exhaust fluid (DEF).
- Synergy systems will provide basic PC interface software and offer professional software
- Synergy systems will have three database options; a limited option, an intermediate option and an advanced option
- Synergy systems will have flexible features allowing for expansion of fluids, users, dispense points, technician monitoring, and networking.
- Synergy systems must be 100% wired for data security and communication reliability.

Fluid Inventory Control - Synergy Multi-Point Dispense Module (MPDM)



Overview

- The Multi-Point Dispense Module handles metering and fluid solenoid control from any keypad or PC in the entire system.
- One module controls up to 4 reel dispense points and offers a keyed manual override.
- Every outlet port can be given unique functions: Volume, time out, job number, group access, Pulse Per Unit, display information, min./max. volume.

MODELS AVAILABLE

- | | | |
|--------------------------|-----------------|-----------------------------|
| <input type="checkbox"/> | 3110-017 | Multi-Point Dispense Module |
|--------------------------|-----------------|-----------------------------|

TECHNICAL DATA

Function	Module controls 4 dispense points/solenoids
Requirements & Limitations	4 outlets/dispense points Limit of 60' max. distance per dispense point from MPDM to meter valve AC Power cord (not included), see part 3130-001
Power	Input-110 VAC, output - 24 V DC

Description:

- 1.1. The Multi-Point Dispense Module handles metering and fluid solenoid control from any keypad or PC in the entire system.
- 1.2. One module controls up to 4 reel dispense points and offers a keyed manual override.
- 1.3. Every outlet port can be given unique functions: Volume, time out, job number, group access, Pulse Per Unit, display information, min./max. volume.

Specifications

- 2.1. Synergy Multi-Point Dispense Module will control 4 dispense points/solenoids
- 2.2. Synergy Multi-Point Dispense Module will have a maximum of 60' (18 m) distance per dispense point from MPDM to meter valve
- 2.3. Synergy Multi-Point Dispense Module will have an internal database limited to eight PIN codes only
- 2.4. Synergy Multi-Point Dispense Module will have an input of 110 VAC and an output of 24 VDC

Warranty

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



Overview

- The standard keypads are designed to be located in strategic locations to allow remote entry of reel selection, PIN, job number, etc.
- Can be equipped with optional Serial Port Kit for use with an external reader.
- No limit for number of keypads in the system.
- Any reel dispense points can be opened from any keypad.

MODELS AVAILABLE	
<input type="checkbox"/> 3110-016	Keypad with Serial Port
TECHNICAL DATA	
Function	Module allows remote entry of PIN, job number, qty, etc.
Requirements & Limitations	Minimum 1 keypad required to operate a remote system No limit for number of keypads in the system
Power	Input - 24 V DC, output - 24 V DC

Description:

- 1.1. The standard keypads are designed to be located in strategic locations to allow remote entry of reel selection, PIN, job number, etc.
- 1.2. Can be equipped with optional Serial Port Kit for use with an external reader.
- 1.3. No limit for number of keypads in the system.
- 1.4. Any reel dispense points can be opened from any keypad.

Specifications

- 2.1. Synergy system will require a minimum of one keypad to operate a remote system
- 2.2. Synergy system keypad will have no limit to the number of keypads in the system
- 2.3. Synergy standard keypad will have an input of 24 VDC and an output of 24 VDC
- 2.4. Synergy can be equipped with a serial port kit for use with an external reader

Warranty

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

Fluid Inventory Control - Synergy PC Interface Module



Overview

PC Interface Module

- Interfaces Synergy system to the PC
- Includes basic software:
 - Allowing graphic visualization of the Synergy system components.
 - Export system data to a simple text file.
 - Synchronization of the system time with the PC
 - Enhance system capabilities with Synergy Professional software.
- Operator interface, includes powerful database manager with professional software.

MODELS AVAILABLE

<input type="checkbox"/> 3110-019	PC Interface Module
-----------------------------------	---------------------

TECHNICAL DATA

Function	Allows PC Interface
Requirements & Limitations	PC Requirements: <ul style="list-style-type: none"> - Runs under Windows 7 / 2000 / XP / Vista / Windows 8, 8.1, 10 - Intel Pentium 2-333Mhz 128Mb RAM - Must have free compatible 9-pin serial port. Comes with Basic Software: <ul style="list-style-type: none"> - Graphically view system - Set system time, update tank levels - Simple data export
Power	Input - 24 V DC, output - 24 V DC

Description:

- 1.1. Interfaces Synergy system to the PC
- 1.2. Includes basic software:
- 1.3. Allowing graphic visualization of the Synergy system components.
- 1.4. Export system data to a simple text file.
- 1.5. Synchronization of the system time with the PC
- 1.6. Enhance system capabilities with Synergy Professional software, see page 102 for software upgrade, sold separately.
- 1.7. Operator interface, includes powerful database manager with professional software.

Specifications

- 2.1. Synergy PC Interface Module will have PC requirements:
 - 2.1.1. Runs under Windows 7/2000 / XP/ Vista / 8.1
 - 2.1.2. Intel Pentium 2-333Mhz 128Mb RAM
 - 2.1.3. Must have free compatible 9-pin serial port
- 2.2. Synergy Tank Control Module will have an input of 24 VDC and an output of 24 VDC

Warranty

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

FIC

Fluid Inventory Control - Synergy Tank Control Module



Overview

Tank Control Module

- The Tank Control Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes.
- Controls up to four air valves for automatic start and stop of pumps.
- Equipped with key switch for normal operation, emergency override and On/Off functions.
- Controls waste pump/solenoid valves providing high level warning for Used Oil or low level warning and reorder point for fresh oil on PC.

MODELS AVAILABLE

<input type="checkbox"/> 3110-020	Tank Control Module
--	---------------------

TECHNICAL DATA

Function	Controls tank monitoring
Requirements & Limitations	4 tanks per module Can only be used in the PC based system
Power	Input - 110 VA C, Output - 24 V DC

Description:

- 1.1. The Tank Control Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes. Control pumps - automatic start and stop.
- 1.2. Controls air solenoid valves.
- 1.3. Equipped with key switch for normal operation, emergency override and On/Off functions.
- 1.4. Controls waste pump/solenoid valves providing high level warning for Used Oil or low level warning and reorder point for fresh oil on PC.

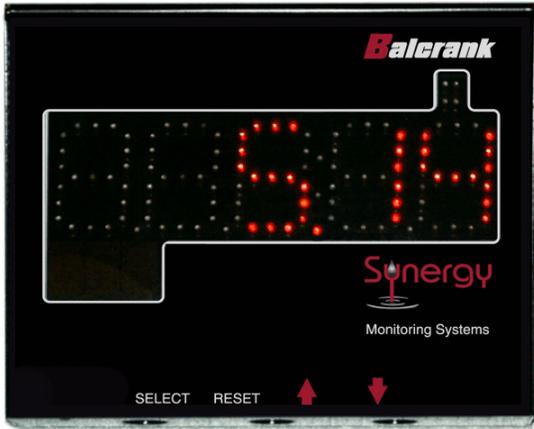
Specifications

- 2.1. Synergy Tank Control Module will control tank monitoring
- 2.2. Synergy Tank Control Module will monitor up to four tanks per module
- 2.3. Synergy Tank Control Module will be used in a PC based system with Synergy professional software
- 2.4. Synergy Tank Control Module will have an input of 110 VAC and an output of 24 VDC

Warranty

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

Fluid Inventory Control - Synergy LED Display



Overview

- Large display, easy to see from long distances.
- The active reel dispense points is shown in the lower left corner.
- When equipped with a clock module or connected with a PC, LED Display unit shows the current time when the system is not in use.
- Displays the active dispense volume
- Can display tank volume when used in a PC based system running the Professional software 3120-072 with a tank control module and an analog sensor.

NOTE: If the LED Display unit is used to display tank volume, it cannot be used to display dispenses, and can only display the volume of a single tank.

MODELS AVAILABLE

<input type="checkbox"/> 3120-068	LED Display
-----------------------------------	-------------

TECHNICAL DATA

Function	Displays active dispense point & time
Requirements & Limitations	Accommodates a clock module for a non-PC system
Power	Input - 24 V DC, Output - 24 V DC

Description:

- 1.1. Large display, easy to see from long distances.
- 1.2. The active reel dispense points is shown in the lower left corner.
- 1.3. When equipped with a clock module or connected with a PC, LED Display unit shows the current time when the system is not in use.
- 1.4. Displays the active dispense volume
- 1.5. Can display tank volume when used in a PC based system running the Professional software 3120-072 with a tank control module and an analog sensor.

NOTE: If the LED Display unit is used to display tank volume, it cannot be used to display dispenses, and can only display the volume of a single tank.

Specifications

- 2.1. Synergy LED Display will accommodate a clock module for a non-PC system

Warranty

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



Overview

Printer Module

- Interfaces FIC system to the optional ticket printer.
- Internal database stores user, PIN, and job information, when no PC is used.
- Transaction details printed on the optional ticket printer.
- Can also be used in a PC system for job tickets anywhere in a system layout.

MODELS AVAILABLE

<input type="checkbox"/> 3110-018	Printer Module
--	----------------

TECHNICAL DATA

Function	Controls printability
Requirements & Limitations	Max. 912 transactions 32 users 8 tanks Accommodates a clock module for a non-PC system The non-PC system requires the Printer Module to create printouts of all transactions to ticket printer (3120-069)
Power	Input - 24 V DC, Output - 24 V DC

Description:

- 1.1. Interfaces FIC system to the optional ticket printer.
- 1.2. Internal database stores user, PIN, and job information, when no PC is used.
- 1.3. Transaction details printed on the optional ticket printer.
- 1.4. Can also be used in a PC system for job tickets anywhere in a system layout.

Specifications

- 2.1. Synergy Printer Module will have a single 25 pin port for connection of the optional ticket printer 3120-069.
- 2.2. Synergy Printer Module will accommodate a clock module for a non-PC system

Warranty

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

Fluid Inventory Control - Synergy Tank Surveillance Module



Overview

Tank Surveillance Module

- The Tank Surveillance Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes. Control pumps - automatic start and stop.
- Controls up to 4 solenoids (air or fluid) and can be used for either standalone tank monitoring or integrated with a PC based system.
- Equipped with key switch for normal operation, emergency override and On/Off functions.
- Green, red, & yellow LED's on the front cover provide current tank status at a glance.
- Used Oil - warning lights indicate ready, high level, and full.
- Fresh oil - warning lights indicate ready, low level, and empty.

MODELS AVAILABLE

<input type="checkbox"/> 3110-021	Tank Surveillance Module
-----------------------------------	--------------------------

TECHNICAL DATA

Function	Controls tank monitoring with LED status lights
Requirements & Limitations	4 tanks per module Can be used as a stand alone, in a non-PC based system, or in a PC based system
Power	Input - 110 VAC, Output - 24 V DC

Description:

- 1.1. The Tank Surveillance Module is used to monitor up to 4 fresh and/or waste oil tanks per module using either high/low level sensors or analog probes. Analog probes only with a PC based system running the Professional software. Control pumps - automatic start and stop.
- 1.2. Controls up to 4 solenoids (air or fluid) and can be used for either standalone tank monitoring or integrated with a PC based system.
- 1.3. Equipped with key switch for normal operation, emergency override and On/Off functions.
- 1.4. Green, red, & yellow LED's on the front cover provide current tank status at a glance.
- 1.5. Used Oil - warning lights indicate ready, high level, and full.
- 1.6. Fresh oil - warning lights indicate ready, low level, and empty.

Specifications

- 2.1. The Synergy Tank Surveillance Module will control tank monitoring
- 2.2. The Synergy Tank Surveillance Module will monitor up to four tanks per module
- 2.3. The Synergy Tank Surveillance will be used as a stand-alone or integrated with PC based system
- 2.4. The Synergy Tank Surveillance Module will have an input of 110 VAC and an output of 24 VDC

Warranty

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

Fluid Inventory Control - Synergy Accessories & Applications

	MODEL	DESCRIPTION	COMPONENT
	PROGRAMS & APPLICATIONS		
	<input type="checkbox"/> 3120-072	Professional Software	Full-featured PC database. Easy system configuration Variety of standard & customized reports
	<input type="checkbox"/> 3110-022	PC Keypad interface	
	<input type="checkbox"/> 3120-070	Tank Alerts via E-mail	
	<input type="checkbox"/> 3110-023	DB Dock Service. Synchronize mobile database with main database	
	COMMUNICATION & CONTROL		
	<input type="checkbox"/> 3128-050	Communication Cable 50 ft.	
	<input type="checkbox"/> 3128-100	Communication Cable 100 ft.	
	<input type="checkbox"/> 3128-150	Communication Cable 150 ft.	
	<input type="checkbox"/> 3128-250	Communication Cable 250 ft.	
	<input type="checkbox"/> 3129-050	Control Cable 50 ft.	
	<input type="checkbox"/> 3129-100	Control Cable 100 ft.	
	<input type="checkbox"/> 3129-150	Control Cable 150 ft.	
<input type="checkbox"/> 3129-250	Control Cable 250 ft.		
 <p>3120-082 3120-092 3120-093</p> <p>3120-094 3120-084</p>	TANK SENSORS		
	Tank sensors (switches provide low level/high level responses, depending on model. For use with Tank Control Module 3110-020 and Tank Surveillance Module 3110-021)		
	<input type="checkbox"/> 3120-079	Level Sensor, Switch, Oil. Low level stop, 3.5 ft. with 17 ft. cable	
	<input type="checkbox"/> 3120-080	Level Sensor, Switch, Other Fluids. Low level stop, 3.5 ft. with 17 ft. cable	
	<input type="checkbox"/> 3120-081	2 Level Sensor, Switch, Oil. Low level alarm and stop, 3.5 ft. with 17 ft. cable	
	<input type="checkbox"/> 3120-082	2 Level Sensor, Switch, Other Fluids. Low level alarm and stop, 3.5 ft. with 17 ft. cable	
	<input type="checkbox"/> 3120-083	2 Level Sensor, Switch, Used Oil. High level alarm and stop, 11.75" warning and 6" off/stop	
	<input type="checkbox"/> 3120-084	Level Sensor, Analog, Oil. Provides low level/high level actual volume, for tanks up to 13 ft. tall with 23 ft. cable	
	<input type="checkbox"/> 3120-092	1 Level Sensor, Switch, Single Probe, 5.6 ft. with 33 ft. cable	
	<input type="checkbox"/> 3120-093	2 Level Sensor, Switch, Double Probe, 3 ft. & 5.5 ft. with 33 ft. cable	
<input type="checkbox"/> 3120-094	1 Level Sensor, Switch, Flex Adjustable Single Probe, 16 ft. cable		
	TICKET PRINTER		
	<input type="checkbox"/> 3120-069	Optional ticket printer for use with Printer Module 3110-018	
	Y-STRAINER - 580 PSI (40 BAR) ALL STRAINERS HAVE 40 MESH		
	<input type="checkbox"/> 3120-211	1/2" NPT(F)	
	<input type="checkbox"/> 3120-212	3/4" NPT(F)	
	<input type="checkbox"/> 3120-213	1" NPT(F)	



Fluid Inventory Control - Synergy Solenoid Valves & Components

DR METER							
	MODEL	MATERIAL	INLET/OUTLET THREADS	UNIT OF MEASURE	MAX PRESSURE	COMPATIBLE FLUIDS	SB
	3120-013 PULSE METER	CPVC	1/2" NPT(F)	Liters, Gallons, Quarts, and pints	450 psi (10 bar)	Glycol, windshield wash solutions and DEF	SB 3107
DR METER HIGHFLO							
	3120-014 PULSE METER	Aluminum	3/4" NPT(F)	Liters, Gallons, Quarts, and pints	1450 psi (10 bar)	Oil, glycol and coolant solutions	SB 3108
		MODEL	DESCRIPTION	COMPONENT TECHNICAL DATA			
		METER/VALVE KITS					
		Solenoid Valve Kits - High precision meter modules include pulse meter, and solenoid valve. Balcrank recommends the use of a Y-Strainer on the dispense side of the pump, Order one per dispense point for use with Synergy					
	<input type="checkbox"/>	3120-117	Oil	Pressure: 1450 psi (100 bar) Connection: 1/2" NPT(M/M) Power: 24 V DC			
	<input type="checkbox"/>	3120-074	Grease	Pressure: 7250 psi (500 bar) Connection: In: 1/4" NPT(M) Out: 1/4" NPT(M) Power: 24 V DC			
	<input type="checkbox"/>	3120-075	Diesel	Pressure: 145 psi (10 bar) Connection: 3/4" NPT(M/M) Power: 24 V DC			
	<input type="checkbox"/>	3120-077	Windshield Washer Fluid	Pressure: 725 psi (50 bar) Material: 1/2" NPT(M/M) Power: 24 V DC			
	<input type="checkbox"/>	3120-078	DEF	Pressure: 725 psi (50 bar) Material: 1/2" NPT(M/M) Power: 24 V DC			
	<input type="checkbox"/>	3120-031	-	Ready Light Alerts technician when fluid batch is available for dispensing.			
		FIC ACCESSORIES					
		Bar code, Card, and Dallas Key Reader require a Serial Port Kit					
	<input type="checkbox"/>	3120-204	Clock Module for LED or Printer Module				
	<input type="checkbox"/>	3120-205	Serial Port Kit				
	<input type="checkbox"/>	3120-208	Bar Code Reader + Serial Port Kit				
	<input type="checkbox"/>	3120-209	Card Reader + Serial Port Kit				
	<input type="checkbox"/>	3120-210	Dallas Key Reader + Serial Port Kit				

FIC

Synergy Meter Solenoid Valve Kit

- 3120-117** Meter Solenoid Valve Kit for Oil/ Anti-freeze
- 3120-074** Meter Solenoid Valve Kit for Grease
- 3120-075** Meter Solenoid Valve Kit for Diesel
- 3120-077** Meter Solenoid Valve Kit for WW Fluid
- 3120-078** Meter Solenoid Valve Kit for DEF
- 3120-031** Ready Light

Description:

- 1.1. The Balcrank Synergy Pulse Meter Solenoid Valve Kit high precision meter modules will include pulse meter, and solenoid valve
- 1.2. The Synergy Pulse Meter Solenoid Valve Kit will control dispensing of fluids including synthetic oils, mineral-based oil and grease, anti-freeze, windshield washer fluid, and Diesel Exhaust Fluid (DEF).
- 1.3. The Synergy Pulse Meter Solenoid Valve Kit will be designed to be located at each dispense point

Specifications

- 2.1. The Synergy Pulse Meter Solenoid Valve Kit will control fluid dispensing
- 2.2. The Synergy Pulse Meter Solenoid Valve Kit will have an input of 24 VDC
- 2.3. The Synergy Pulse Meter Solenoid Valve Kit for Oil/Anti-freeze will have
 - 2.3.1. Max operating pressure of 1450 psi (100 bar)
 - 2.3.2. Connection 1/2" NPT (M/M)
 - 2.3.3. Meter accuracy of +/- 0.5% easy to calibrate pulse of 310 PPQ (328 PPL)
- 2.4. The Synergy Pulse Meter Solenoid Valve Kit for Grease will have
 - 2.4.1. Max operating pressure of 7250 psi (500 bar)
 - 2.4.2. Connection In: 3/8" NPT(M), Out: 1/8" NPT(M)
- 2.5. The Synergy Pulse Meter Solenoid Valve Kit for Diesel will have
 - 2.5.1. Max operating pressure of 145 psi (10 bar)
 - 2.5.2. Connection 3/4" NPT(M/M)
- 2.6. The Synergy Pulse Meter Solenoid Valve Kit for Windshield Washer Fluid and DEF will have
 - 2.6.1. Max operating pressure of 725 psi (50 bar)
 - 2.6.2. Connection 1/2" NPT(M/M)

Warranty

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

Fluid Inventory Control - TM Control



Overview

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.

MODELS AVAILABLE

<input type="checkbox"/> 3110-033	TM Control
-----------------------------------	------------

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

FIC

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 - TM Control

	MODEL	DESCRIPTION	COMPONENT TECHNICAL DATA
RECOMMENDED ACCESSORIES			
	<input type="checkbox"/> 3120-029	Tank alert strobe alarm	Power: 24 V DC
	<input type="checkbox"/> 3120-033	Air solenoid valve	Air Solenoid Provides for the remote shutdown of dispensing 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
TANK SENSORS			
Tank sensors (switches provide low level/high level responses, depending on model)			
 3120-092	<input type="checkbox"/> 3120-092	1 Level Sensor, Switch, Single Probe, 5.6 ft. with 33 ft. cable	
 3120-093	<input type="checkbox"/> 3120-093	2 Level Sensor, Switch, Double Probe, 3 ft. & 5.5 ft. with 33 ft. cable	
 3120-094	<input type="checkbox"/> 3120-094	1 Level Sensor, Switch, Flex Adjustable Single Probe, 16 ft. cable	



Used Fluid Equipment - Roughneck II™



Used Fluid

Overview

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.

- Patented automatic fluid evacuation valve eliminates gravity draining, pouring, or the need for an evacuation pump.
- 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 filter screen 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4110-022	Roughneck II™ Used Oil Drain
<input type="checkbox"/> 4110-023	Roughneck II™ Used Anti-freeze Drain

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

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)



Overview

Premium drains capture used fluids and transfers them to any bulk storage tank using a cam-lock kit and evacuation system.

- All Steel tank and base design made from heavy gauge Steel, guaranteeing long life
- 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 include filter 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4110-024	Premium Duty Used Oil Drain
<input type="checkbox"/> 4110-025	Premium Duty Used Anti-freeze (Glycol) Drain

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

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:

- 4110-024** **Used oil**
- 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



Used Fluid

Overview

Spillguard drains capture used fluids and transfer to any bulk storage tank using a cam-lock kit and evacuation system

- Balcrank "wide track" 4" caster dolly set for easy maneuvering on any floor surface.
- All Steel cover, container, and base design
- 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 filter 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4110-026	Spillguard used oil drain
<input type="checkbox"/> 4110-027	Spillguard used oil drain drumless
<input type="checkbox"/> 4110-028	Spillguard used anti-freeze (Glycol) drain
<input type="checkbox"/> 4110-029	Spillguard used anti-freeze (Glycol) drain drumless

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

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 Evacuators

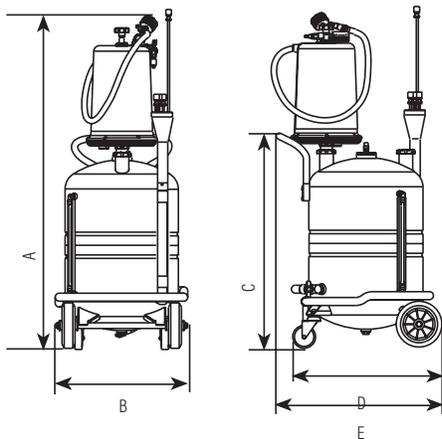


Overview

- 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 six 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)

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4140-056	Oil Evacuators
<input type="checkbox"/> 4140-057	Oil Evacuators with Clear Domes and Mercedes Adapter

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



DIMENSIONS INCHES (MM)				
A	B	C	D	E
46.06" (1,170)	18.5" (470)	29.5" (750)	18.70" (475)	22.84" (580)

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



Features

The Truck Drain comes pre-assembled allowing for immediate use. Designed to capture used fluids. Includes "used oil only" and "used anti-freeze only" decals for fluid identification. Connects to a used oil evacuation system using a dry-break or cam-lock kit (sold separately) and evacuation system.

- Two fixed 8" wheels and one swivel caster on rear
- Double baffles with upper screen and a catch lip help prevent fluid from splashing out
- Tubular U-handle design for excellent maneuvering
- Powder coated for corrosion resistance with high quality powder coating. Drains are available in safety yellow.
- All Steel design

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 waste oil evacuation		4140-013 Hose Kit for waste oil evacuation Includes: 4140-017 - Cam-lock coupler 1" x 1", 8181-002X - Hose low pressure 2.5' x 1"

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4120-006	Truck Drain Bare

TECHNICAL DATA	
MODELS	4120-006
Tank Capacity	26 gal (98.4 l)
Fluid Outlet	1"
Measurements	9" H x 24" W x 36" L
Wetted Materials	Zinc Plated Steel, Steel, Viton®, HDPE, and PVC
Service Bulletin	SB 4051

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** Truck Drain

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



Overview

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.

- 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 tools.
- All Steel design

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 4140-060	Drain - Pit Boss with Quick Connect Kit 4140-061
<input type="checkbox"/> 4140-020	Drain - Pit Boss Bare

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 waste oil evacuation		4140-013 Hose Kit for waste oil evacuation Includes: 4140-017 - Cam-lock coupler 1" x 1", 8181-002X - Hose low pressure 2.5' x 1"

TECHNICAL DATA	
MODELS	4140-060 4140-020
Tank Capacity	34 gal (128.7 l)
Fluid Outlet	4140-060 1" cam-lock nipple 4140-020 1" NPT(F) bare
Measurements	16.72" H x 28.4" W x 34" L, 2" adjustable unit height
Wetted Materials	Zinc Plated Steel, Steel, Viton®, HDPE, and PVC
Service Bulletin	SB 4018

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)

Electric Diaphragm Pump - Drum Packages



Overview

- 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 castor - built in break 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.
- 4320-007, 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.

MODELS AVAILABLE	DESCRIPTION
<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
<input type="checkbox"/> 1210-053P	12 V DC Metered, Auto Nozzle

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

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 or 12V DC 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:

- 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
- 1210-053P** 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 (1.6 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
- 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 (36 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. Portable Air Outfits will have a 1-year replacement only warranty (defects in materials and workmanship only).

Electric Diaphragm Pump - Tote Packages



Overview

- 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1210-046	120 V AC Non-metered, Manual Nozzle
<input type="checkbox"/> 1210-047	120 V AC Metered, Manual Nozzle
<input type="checkbox"/> 1210-048	120 V AC Non-metered, Auto Nozzle
<input type="checkbox"/> 1210-049	120 V AC Metered, Auto Nozzle
<input type="checkbox"/> 1210-050	12 V DC Non-metered, Manual Nozzle
<input type="checkbox"/> 1210-052	12 V DC Non-metered, Auto Nozzle
<input type="checkbox"/> 1210-053	12 V DC Metered, Auto Nozzle

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

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).

CF Diaphragm Pump - Drum Packages



Overview

- 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 break 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.
- 4320-007, 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1210-054P	CF15 Non-metered, Manual Nozzle
<input type="checkbox"/> 1210-055P	CF15 Metered, Manual Nozzle
<input type="checkbox"/> 1210-056P	CF15 Non-metered, Auto Nozzle
<input type="checkbox"/> 1210-057P	CF15 Metered, Auto Nozzle

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 1122

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
- 1210-055P** CF15 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)

CF Diaphragm Pump - Tote Packages



Overview

- 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.

MODELS AVAILABLE	DESCRIPTION
<input type="checkbox"/> 1210-054	CF15 Non-metered, Manual Nozzle
<input type="checkbox"/> 1210-055	CF15 Metered, Manual Nozzle
<input type="checkbox"/> 1210-056	CF15 Non-metered, Auto Nozzle
<input type="checkbox"/> 1210-057	CF15 Metered, Auto Nozzle

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 1122

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
- 1210-055** CF15 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)

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™ 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

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™ 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 0-200 FT			TUBING		PIPE	
PUMP	RATIO	MAX PRESSURE	OD	WALL	SIZE	WALL
Panther®	50:1	6,000 PSI (414 bar)	5/8"	.125	1/2"	Sch 80
Lion™ 450	25:1	5,000 PSI (345 bar)	5/8"	.125	1"	Sch 40
Lion™ 450	40:1	8,000 PSI (551 bar)	5/8"	.125	1/2"	Sch 80
Lion™ 450	70:1	7,000 PSI (483 bar)	5/8"	0.095	1/2"	Sch 160
Lion™ 600	80:1	8,000 PSI (551 bar)	5/8"	0.095	1/2"	Sch 160

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™ 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

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

Additional notes:

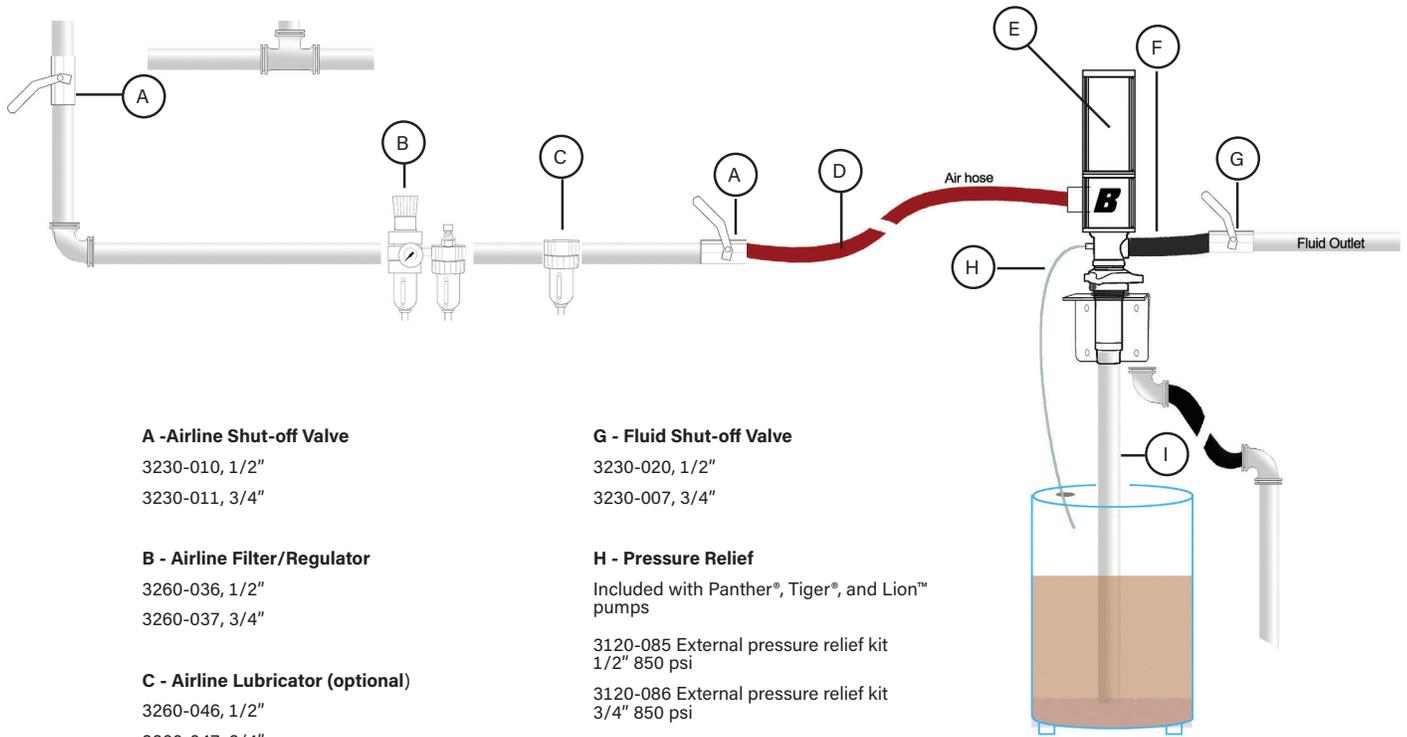
- 1) Line pressures for grease pumps are limited by the strength of steel tubing and grease hose working pressure ratings. Regulate air supply pressure for grease pumps to ("max pressure"/50) psi to avoid line pressure limits.
- 2) Based on use of fully annealed steel tubing, 15,000 psi (1,034 bar) yield 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) When thermal expansion of oil may be present, use a pump pressure relief valve.

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	
8132	Air / Water	3/8"	300	1/4" M x 1/4" M			-005											
8134	Air / Water	3/8"	300	3/8" M x 3/8" MSW		-003	-005											
8135	Nitrogen-Green	3/8"	250	1/4" M x 1/2" M								-030	-040	-050				
8135	Nitrogen-Green	3/8"	250	1/2" M x 1/2" M	-002x													
8136	Air / Water	3/8"	300	1/4" M x 1/2" M						-016		-030	-040	-050	-060			
8141	Air / Water	1/2"	300	1/2" M x 1/2" M		-003	-005					-030	-040	-050	-060	-075	-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		-003	-005											
8145	Air / Water	1/2"	300 & suc	1/2" M x 1/2" MSW			-005											
8146	Air / Water	1/2"	300 & suc	1/2" MSW x 3/8" F					-010									
8149	Air/Water	1/2"	300	1/2" M x 1/2" MSW			-005											
8161	Air/Water	3/4"	300	3/4" M x 3/4" MSW	-002x									-050	-060	-075		
8171	Air / Water	3/4"	250 & suc	3/4" MSW x 3/4" MSW				-006										
8181	Air / Water	1"	250 & suc	1" MSW x 1" MSW	-002x		-005	-006						-050				
8241	Oil	1/2"	3,000	1/2" M x 1/2" M	-002	-003		-006	-008	-016	-020 & -025	-030	-040	-050	-060	-070		
8242	Oil	1/2"	3,000	3/8" M x 3/8" M	-002	-003	-005	-006	-010		-020	-030	-040	-050	-060			
8249	Oil	1/2"	3,000	1/2" M x 1/2" MSW	-002x	-004	-005	-006	-008 & -010	-016								
8250	Oil	1/2"	2,320	1/2" MSW x 1/2" M											-065	-075	-100	
8261	Oil	3/4"	1,525	3/4" M x 3/4" M		-003	-005		-010									
8262	Oil	3/4"	1,525	1/2" MSW x 1/2" MSW					-010									
8263	Oil	3/4"	1,525	3/4" M x 1/2" MSW					-010									
8264	Oil	3/4"	1,525	3/4" M x 3/4" MSW	-002x	-003	-005					-030		-050		-075		
8281	Oil	1"	2,250	1" M x 1" MSW	-002x		-005											
8321	Grease	1/4"	5,000	1/4" M x 1/4" MSW				-007				-030	-040	-050	-060			
8322	Grease	1/4"	5,000	1/2"-27 F x 1/2"-27 F	-002	-003	-005		-010		-020			-050				
8323	Grease	1/4"	5,000	1/4" M x 3/8" M								-030	-040	-050	-060			
8331	Grease	3/8"	4,000	1/4" M x 1/4" MSW			-005	-007	-010	-016	-020	-030	-040	-050	-060			
8332	Grease	3/8"	4,000	1/4" M x 3/8" M			-005	-007	-010		-020	-030	-040	-050	-060			
8333	Grease	3/8"	4,000	3/8" M x 3/8" M			-005	-007	-010		-030							
8334	Grease	3/8"	4,000	3/8" M x 3/8" MSW	-002x													
8340	Grease	1/2"	5,000	1/2" M x 1/2" MSW	-002x				-010		-020					-075		
8466	Diesel	3/4"	50	3/4" M x 3/4" MSW	-002x							-030		-050				
8481	Diesel	1"	50	1" M x 1" MSW	-002x									-050				
THREADS (BSPP)																		
8551	DEF	1"	50	cut end x simple spout				-006										
8560	DEF	3/4"	150	cut ends w/ hose clamps		-003			-012									
8561	DEF	3/4"	150	cut end x 3/4" M		-003		-006	-012	-016	-020	-030						
8562	DEF	3/4"	150	3/4" M x 3/4" MSW		-003												
8569	DEF	3/4"	150	3/4" MSW x 3/4" MSW W/restrictors						-016	-020	-030		-050				
8570	DEF	3/4"	150	Cut ends w/ hose clamps		-003		-006										
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 Shut-off Valve

3230-010, 1/2"

3230-011, 3/4"

B - Airline Filter/Regulator

3260-036, 1/2"

3260-037, 3/4"

C - Airline Lubricator (optional)

3260-046, 1/2"

3260-047, 3/4"

D - Air Connection Hose

8144-005, 5' x 1/2"

E - Balcrank oil piston pump

1130-015 Panther® 3:1

1130-016 Panther® 5:1

1130-019 Tiger® 6:1

1430-001 Lion™ 450 3:1

1430-003 Lion™ 450 10:1

F - Fluid Connection Hose

8249-005, 5' x 3/8"

8149-005, 5' x 4/1"

G - Fluid Shut-off Valve

3230-020, 1/2"

3230-007, 3/4"

H - Pressure Relief

Included with Panther®, Tiger®, and Lion™ pumps

3120-085 External pressure relief kit
1/2" 850 psi3120-086 External pressure relief kit
3/4" 850 psi
I - Suction Tube for Direct Immersion for Panther® 3:1, 5:1, and Tiger® 6:1 HP

4412-044 1" NPT(M) x 18" - 30° 16 gal drum

4412-046 1" NPT(M) x 26" - 30° 55 gal drum

4412-045 1" NPT(M) x 21" - 30° 165/280 gal bench tank

4412-048 1" NPT(M) x 30" - 30° 165/280 gal bench tank double tap

4412-047 1" NPT(M) x 28" - 30° 250 gal bench tank double tap

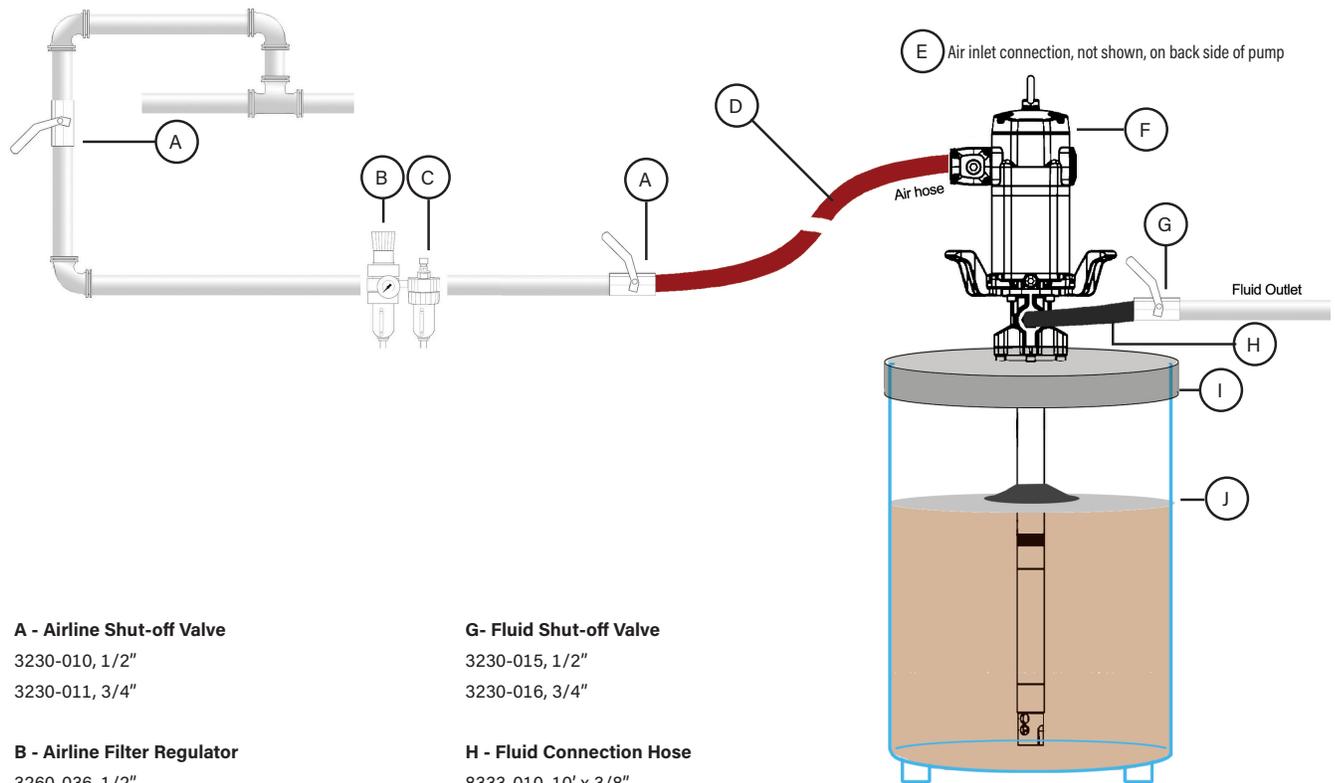
4412-051 1" NPT(M) x 42" - 30° 275/330 gal horizontal obround double tap

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

Grease pumping system



A - Airline Shut-off Valve

3230-010, 1/2"
3230-011, 3/4"

B - Airline Filter Regulator

3260-036, 1/2"
3260-037, 3/4"

C - Airline Lubricator (optional)

3260-046, 1/2"
3260-047, 3/4"

D - Air Connection Hose

8144-005, 5' x 1/2"

E - Air inlet connection

3270-001, Nipple
3270-002, coupler

F - Balcrank piston grease pump

1450-002 Lion™ 450 40:1 400 lb

G - Fluid Shut-off Valve

3230-015, 1/2"
3230-016, 3/4"

H - Fluid Connection Hose

8333-010, 10' x 3/8"
8322-005, 5' x 1/4"

I - Drum Cover 400 lb drum

4420-004 Panther® 50:1
4420-013 Lion™ 40:1

J - Follower Plate

4440-009 Panther® 50:1
4440-015 Lion™ 40:1

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

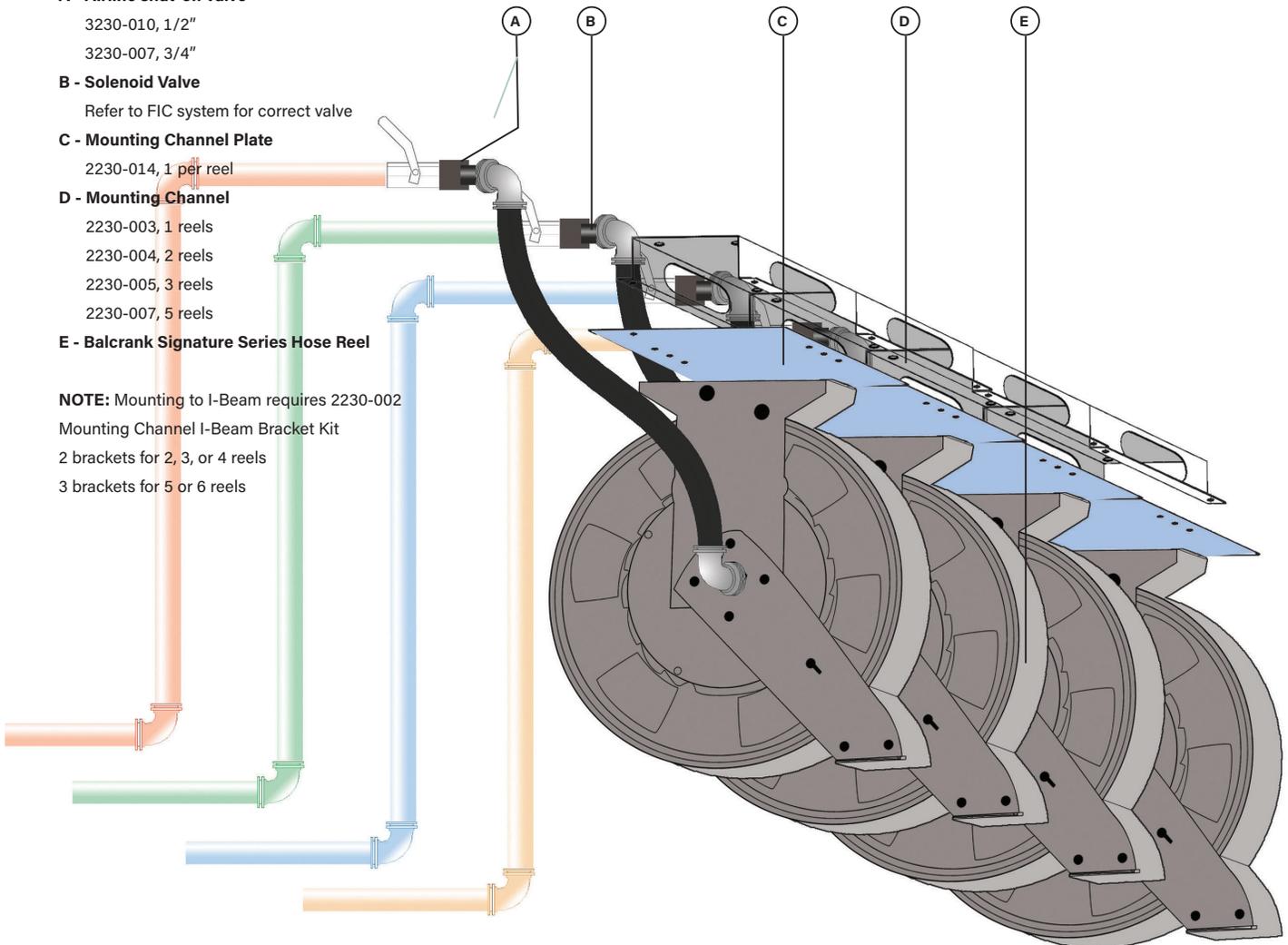
E - Balcraan Signature Series Hose Reel

NOTE: Mounting to I-Beam requires 2230-002

Mounting Channel I-Beam Bracket Kit

2 brackets for 2, 3, or 4 reels

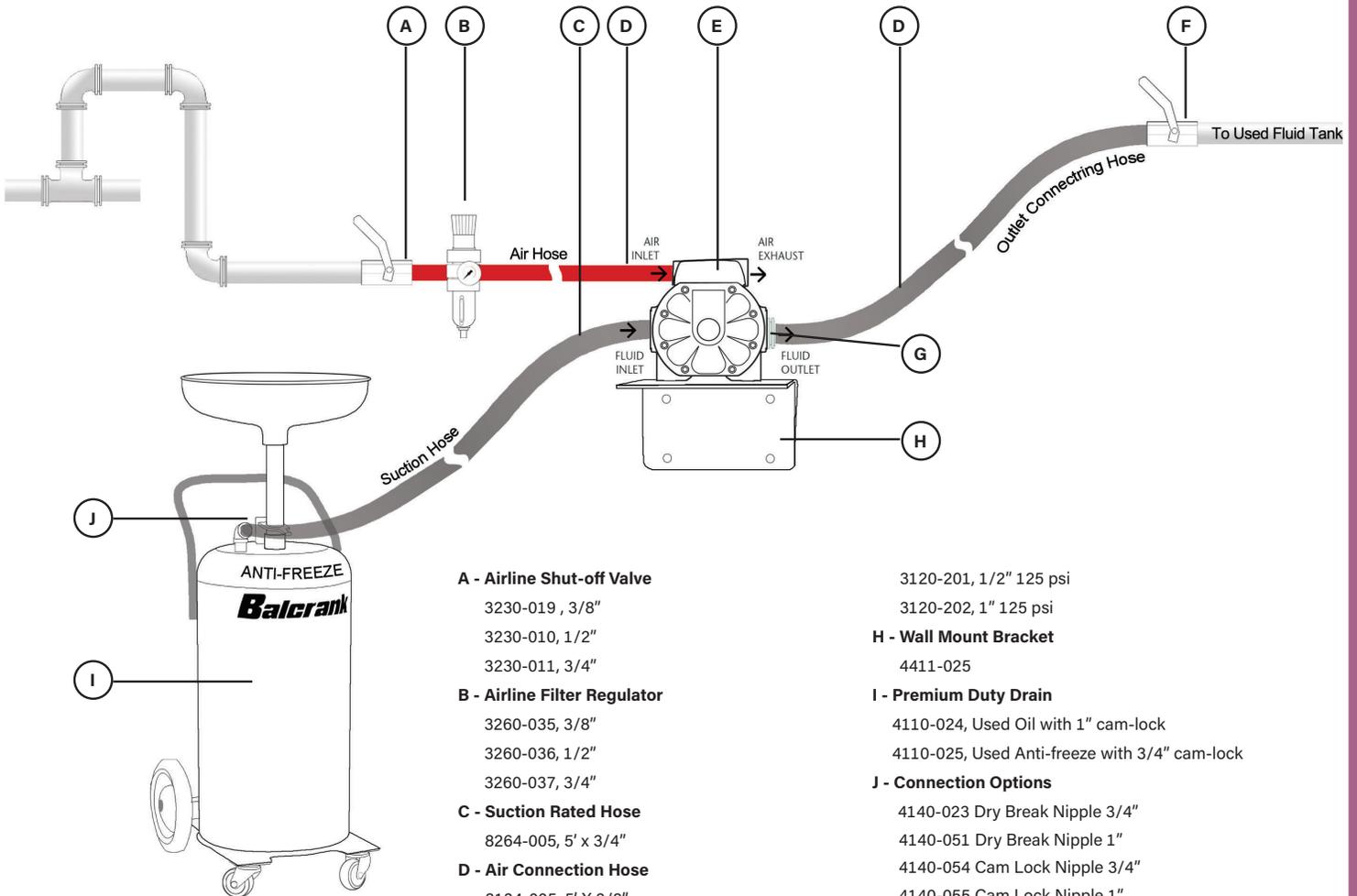
3 brackets for 5 or 6 reels



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 Balcraan's reel installation requirements.

Used Fluid Evacuation Systems



A - Airline Shut-off Valve

- 3230-019, 3/8"
- 3230-010, 1/2"
- 3230-011, 3/4"

B - Airline Filter Regulator

- 3260-035, 3/8"
- 3260-036, 1/2"
- 3260-037, 3/4"

C - Suction Rated Hose

- 8264-005, 5' x 3/4"

D - Air Connection Hose

- 8134-005, 5' X 3/8"

E - CenterFlo

- 1120-024A, CF30 Aluminum AODD

F - Fluid Shut-off Valve

- 3230-002, 1/2"
- 3230-007, 3/4"

G - Pressure Relief Kit

- 3120-201, 1/2" 125 psi

- 3120-202, 1" 125 psi

H - Wall Mount Bracket

- 4411-025

I - Premium Duty Drain

- 4110-024, Used Oil with 1" cam-lock

- 4110-025, Used Anti-freeze with 3/4" cam-lock

J - Connection Options

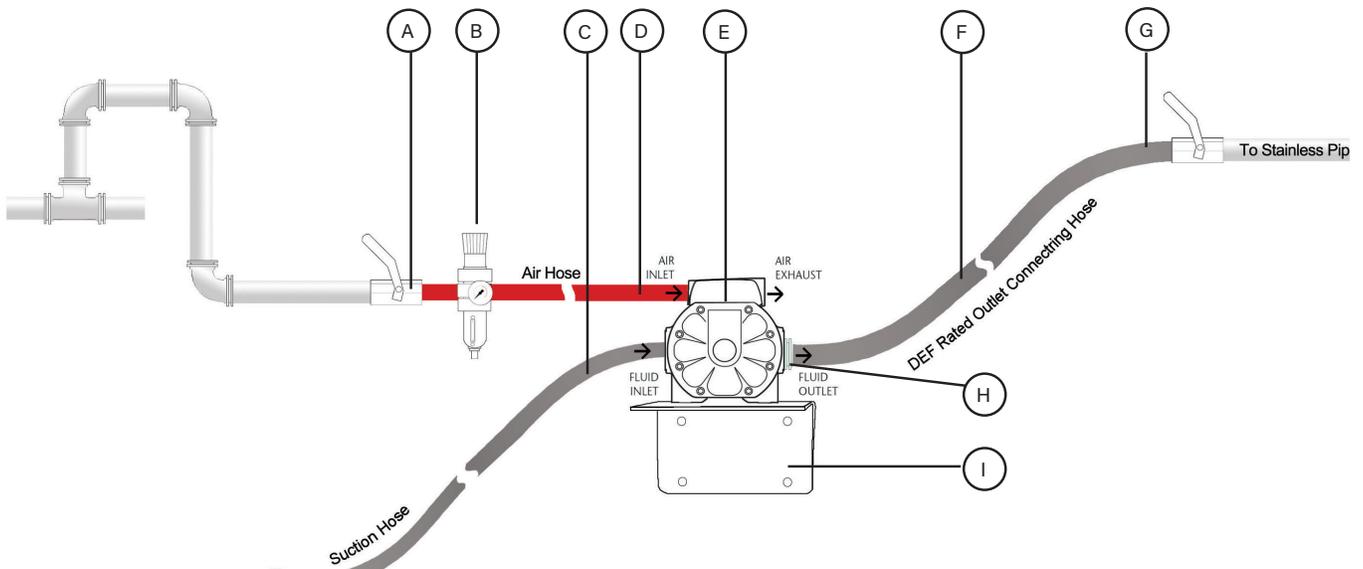
- 4140-023 Dry Break Nipple 3/4"

- 4140-051 Dry Break Nipple 1"

- 4140-054 Cam Lock Nipple 3/4"

- 4140-055 Cam Lock Nipple 1"

DEF Pumping Systems


A - Airline Shut-off Valve

3230-019, 3/8"

3230-010, 1/2"

3230-011, 3/4"

B - Airline Filter Regulator

3260-035, 3/8"

3260-036, 1/2"

3260-037, 3/4"

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

832760, 3/4" Stainless Steel Clamp

G - Outlet Valve - Stainless Steel
H - Pressure Relief Kit

3120-201, 1/2" 125 psi

3120-202, 1" 125 psi

I - Wall Mount Bracket

4411-016

J - Suction Kit includes; RSV series

coupler, insert and dip tube

4530-045, 275 gal tote

4530-046, 330 gal

