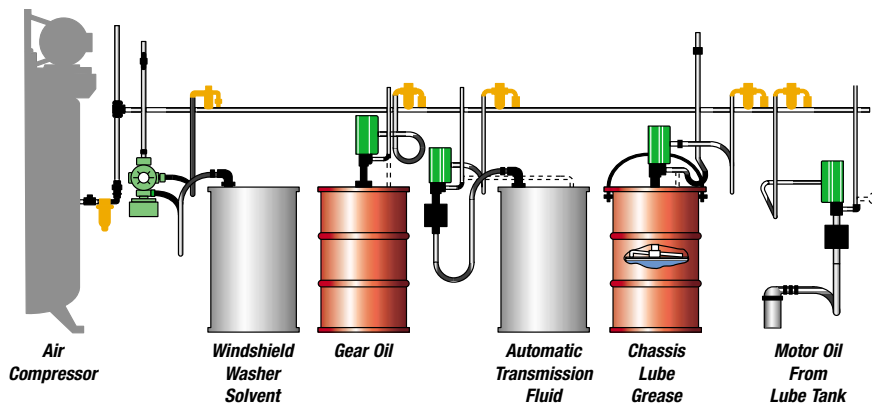


# Lubrication Equipment



Ingersoll-Rand lubrication equipment reflects the same high standards of performance as IR tools and air compressors, with a full range of products that will keep all types of fluids moving efficiently. They are backed by more than 70 years of experience in pump and air system technology, and include models specifically designed for popular applications:

***Thunder® Piston Pumps for grease...or for motor oil, gear oil, and transmission fluid***

- Unique design improves flow, reduces pulsation, and extends service life
- 50 percent fewer parts than comparable pumps
- Fast, easy in-line service, with no special tools required
- Stall-free, ice-free air motor with tough, durable housing
- Five year warranty

***Diaphragm Pumps for drum use with oil and other light fluids...or for direct use with antifreeze, water, windshield cleaning fluid, fuel, solvents, oils, transmission fluid, and waste oil***

- Patented unSTALLable air valve applies constant pressure to ensure resets
- Bolted construction provides better joint integrity and fast, easy servicing, while helping to eliminate material spills and leaks
- No lubrication or complex controls required
- Variable flow rates, by adjusting air pressure
- Five year warranty
- Accessories that complement IR pump performance
- Digital/metered fluid control handles that are precise and easy to use
- High pressure grease control handles
- Many models feature a five year warranty

***All IR lubrication equipment products are built to global quality standards to deliver unmatched dependability and productivity. Your IR distributor can provide complete details and recommendations for your facility.***

# Thunder® Piston Pumps

**Reliable** - Thunder features a stall-free, ice-free air motor design (patents applied for) contained in a rugged housing that will withstand most working environments.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Install Thunder and see for yourself how fewer parts translate into fewer headaches when it comes to service or routine maintenance.

**No Mechanical Assist** - Thunder's valving design (patents applied for) uses no trip rods or push pins to break.

**Minimum Number of Tools, No Special Tools** - If you can find a standard wrench you can service Thunder.

**In-line Service** - You can service Thunder right where it stands, avoiding the costly tear-down/removal/replacement cycle that most pumps require.

**Thunder's Design improves flow, reduces pulsation and extends service life.**

**All pumps come equipped with a 2" bung adapter, standard.**

**All-Weather Pumping** - Thanks to its unique bung adapter design, by adding an optional seal kit, P/N# 67088-X, Thunder can be used outdoors or in, with complete confidence, making it perfect for lube rig installation.

**Noise Levels Within Industry Standards** - This is one form of thunder that's quiet: 2" models: 80 dBA; 3" models: 85dBA.

**Lube-Free Air Motor**

**Backed by a five-year warranty**



## Thunder Pumps and Packages for Motor Oil, Gear Oil, Transmission Fluid

### LP2100-1

This portable oil package utilizes a 3:1 ratio pump and 2" air motor for use with any standard 16 gallon oil keg, and provides a dolly for easy movement from bay to bay. IR pump packages provide everything you need to begin oil service, including pump, control handle, dolly, drum cover, material hose, and ball check valve.



### LP3100-1

This package utilizes a 5:1 ratio oil pump and 3" air motor for use with longer hoses, including hoses on reels. It includes a dolly and all other standard package elements—everything you need to begin oil service.



Lubrication Equipment

Model Number	Working Flow GPM	Free Flow GPM	Air Inlet NPT(F)	Fluid Outlet NPT(F)	Container Size	Pump	Drum Cover	Fluid Meter	Hose	Control Handle	Accessories
<b>3:1 Ratio 2" diameter air motor, 150 max air inlet pressure</b>											
LM2203A-11-B	6	9	1/4"	3/4" / 1/2"	Stub	-					
LM2203A-31-B	6	9	1/4"	3/4" / 1/2"	16 Gal	-					
LM2203A-41-B	6	9	1/4"	3/4" / 1/2"	55 Gal	-					
LP2100-1	6	9	1/4"	3/4" / 1/2"	16 Gal	LM2203A-31-B	94421	635190-1	623501-6	635391-1	Adapter, Dolly, Ball Check Valve
<b>5:1 Ratio 3" diameter air motor, 150 max air inlet pressure</b>											
LM2305A-11	6	9	1/4"	1 1/2" / 1/2"	Stub	-					
LM2305A-31	6	9	1/4"	1 1/2" / 1/2"	16 Gal	-					
LM2305A-41	6	9	1/4"	1 1/2" / 1/2"	55 Gal	-					
LP3100-1	6	9	1/4"	1 1/2" / 1/2"	16 Gal	LM2305A-31	94421	635190-1	623501-6	635391-1	Dolly

# Thunder® Piston Pumps

## Thunder Pumps and Packages for Grease

### LP2002-1-B

35-lb. grease package features a 2" diameter air motor and 50:1 ratio, and includes all of the essential components for fast, consistent grease pumping, including adapter, 10-ft. material hose, z-swivel and standard grease gun.



### LP2004-1-B

120-lb. grease package provides higher capacity components for pumping more material with ease.



### LP2006-1-B

120-lb. grease package adds a dolly to the LP2004-1-B package for easy mobility in the shop.

### LP3001-1

35-lb. grease package features a 3" diameter air motor and 50:1 ratio for greater pumping capacity, and includes pump, drum cover, handle, follower plate, 10-ft. material hose, Z-swivel, adapter, and booster gun.



### LP3003-1

120-lb. grease package handles higher capacity pumping, and adds a dolly for easy mobility in the shop.



### LP3004-1

120-lb. grease package includes the same elements as the LP3003-1 package, but substitutes a standard grease gun and dolly.

Model Number	Working Flow Lbs. per Min.	Free Flow Lbs. per Min.	Air Inlet NPT(F)	Fluid Outlet NPT(F)	Container Size	Pump	Drum Cover	Follower Plate	Fluid Hose	Control Handle	Accessories
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#### 50:1 Ratio 2" diameter air motor, 150 max air inlet pressure

LM2250E-21-B	2	9	1/4"	3/4" / 1/2"	35 lbs	-					
LM2250E-61-B	2	9	1/4"	3/4" / 1/2"	60 lbs	-					
LM2250E-31-B	2	9	1/4"	3/4" / 1/2"	120 lbs	-					
LM2250E-41-B	2	9	1/4"	3/4" / 1/2"	400 lbs	-					
LP2002-1-B	2	9	1/4"	3/4" / 1/2"	35 lbs	LM2250E-21-B	94420	640095-2-B	624201-10	636111	Adapter, Handle, Z-swivel
LP2004-1-B	2	9	1/4"	3/4" / 1/2"	120 lbs	LM2250E-31-B	94421	640165	624201-10	636111	Adapter, Z-swivel
LP2006-1-B	2	9	1/4"	3/4" / 1/2"	120 lbs	LM2250E-31-B	94421	640165	624201-10	636111	Adapter, Z-swivel, Dolly

#### 50:1 Ratio 3" diameter air motor, 150 max air inlet pressure

LM2350E-21-B	4	7.5	1/4"	1 1/2" / 1/2"	35 lbs	-					
LM2350E-61-B	4	7.5	1/4"	1 1/2" / 1/2"	60 lbs	-					
LM2350E-31-B	4	7.5	1/4"	1 1/2" / 1/2"	120 lbs	-					
LM2350E-41-B	4	7.5	1/4"	1 1/2" / 1/2"	400 lbs	-					
LP3001-1	4	7.5	1/4"	1 1/2" / 1/2"	35 lbs	LM2350E-21-B	94420	640095-2-B	624201-10	636103	Adapter, Handle, Z-swivel
LP3003-1	4	7.5	1/4"	1 1/2" / 1/2"	120 lbs	LM2350E-31-B	94421	640165	624201-10	636103	Adapter, Z-swivel, Dolly
LP3004-1	4	7.5	1/4"	1 1/2" / 1/2"	120 lbs	LM2350E-31-B	94421	640165	624201-10	636111	Adapter, Z-swivel, Dolly

# Diaphragm Pumps

## Diaphragm Pumps

### Advantages of IR Air-Operated Diaphragm Pumps

**Unbalanced Air Valve Eliminates Stalling.** Start it up, shut it down — no matter how often or how long, the IR Diaphragm Pump will start pumping every time.

**No Lubrication Required.** One less maintenance detail to log. No oil droplets to contaminate your process or work site. And, the IR Diaphragm is more forgiving in dirty air service.

**Pumping Efficiency Remains Constant.** Since IR Diaphragm Pumps contain no rotors, gears, vanes or pistons to wear out — there is no gradual decline in pump performance. And the IR “Unstallable” air valve uses less power to operate than competitive brands.

**No Foaming or Shearing of Material.** Process fluids enter and exit the IR Diaphragm Pump unchanged.

**Variable Flow Rates.** By simply adjusting air pressure to the pump, or restricting the discharge line, you have better, more precise control over your pump’s flow rate — without pump damage.

**Positive Priming Provides Easy Start-Ups.** Internal pump fluid check valves are located close to the diaphragm chambers — assuring positive self-priming — even from dry start.

**Runs Dry Without Damage.** Because there are no sliding or close-fitting parts at risk — the IR Diaphragm Pump can run dry without damage.

**Lightweight and Portable.** Most IR Diaphragm Pumps can be carried from job to job with ease.

**No Complex Controls.** Unlike electric pumps, IR Diaphragm Pumps contain no wires, circuits, fuses or by-pass controls to burn out and replace.

## Diaphragm Drum Pumps

### Pump Features

**Choose from Aluminum, Stainless Steel or Polypropylene Body Construction** - IR Drum pumps are available in three body material for optimum fluid compatibility.

**Stall-Free Operation** - IR Diaphragm Drum Pumps feature a patented “unbalanced” air valve design that avoids stall-out, even under low air inlet pressures.

**Bolted Construction** - Unlike traditional band-clamp style pumps, IR Diaphragm Drum Pumps utilize bolted fasteners for leak-tight integrity.

**5-Year Warranty**



Model Number	Body Material	Diaphragm & O-ring Material	Air Inlet NPT(F)	Fluid Outlet NPT(F)	Max GPM	Compatible Fluids
<b>1/2" Diaphragm Pumps</b>						
66605J-344	Polypropylene	Teflon	1/4"	1/2"	13	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
66605J-322	Polypropylene	Nitrile	1/4"	1/2"	13	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
66605J-388	Polypropylene	Polyurethane	1/4"	1/2"	13	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
PD05P-AAS-PGG	Aluminum	Nitrile	1/4"	1/2"	13	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
666056-6A4	Polypropylene	Teflon	1/4"	1/2"	13	Solvents
<b>1" Diaphragm Pumps</b>						
666100-344-C	Aluminum	Teflon	1/4"	1"	35	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
666100-362-C	Aluminum	Nitrile	1/4"	1"	35	Windsheld Fluid, Motor/Gear Oil, Transmission Fluid, Antifreeze
650717-C	Aluminum	Viton	1/4"	1"	29	Unleaded Fuel
650709-C	Aluminum	Buna-N	1/4"	1"	29	Diesel Fuel, Kerosene, Aviation Fuel, Fuel Oil

# Diaphragm Pumps

## 612999-3 50/50 AntiFreeze/Water Blending Diaphragm Pump Package

This 1:1 ratio, one-inch diaphragm pump has dual inlets (3/4-inch NPTF) to allow simultaneous pumping and blending of antifreeze and water. Package includes pump, wall mount, siphon tube and hoses, and air filter/regulator.



## 650709-C U.L. Approved Fuel Pumps

Designed specifically for high-volume transfer, bulk-unloading, or fuel applications. **These pumps meet UL 79 specification code** and are compatible with gasoline, aviation fuel, fuel oil and kerosene.



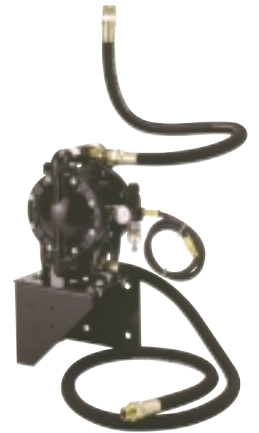
## 613201-2-C Calcium Chloride Tire-Fill Pump Package

Designed for the purpose of evacuating and filling tires with calcium chloride ballast solution. Package includes a 666100-441-C, 1" Ports Diaphragm Pump. (Aluminum construction with neoprene diaphragms and Teflon® checks for compatibility with corrosive calcium chloride) and 60154 Hose / Strainer / Gun Assembly - Also includes Check Valve and all required lamps and related hardware.



## 612999-4 Waste Oil Drains and Differential Oil Evacuation Packages

This convenient package provides everything required for draining oil from specific vehicle components, and includes a diaphragm pump, wall mount bracket, inlet and outlet hose assemblies, filter/regulator, air hose and gauge, fluid coupler and air control valve.



Model Number	Application	Body Material	Diaphragm & O-ring Material	Air Inlet NPT(F)	Fluid Outlet NPT(F)	Max GPM	Package Includes
650715-C	50/50 Mixing of Antifreeze and Water	Aluminum	Nitrile	1/4"	1"	35	Wall mount bracket
612999-3	50/50 Mixing of Antifreeze and Water	Aluminum	Nitrile	1/4"	1"	35	Wall mount, Siphon tubes, Material hoses
DA005-PPNN-2-A	Transfer of Water/Oil	Polypropylene	Nitrile	1/4"	1/2"	11	Bung adapter, Siphon tube, Weather seal, Base
DA005-PPNN-2-N	Transfer of Water/Oil	Polypropylene	Nitrile	1/4"	1/2"	11	Bung adapter, Siphon tube, Seal, Base, 10' Fluid hose, Nozzle
DA005-ASTT-2-A	Transfer of Solvents	Aluminum	Teflon	1/4"	1/2"	11	Bung adapter, Siphon tube, Weather seal, Base
DA005-APNN-2-A	Transfer of Oil	Aluminum	Nitrile	1/4"	1/2"	11	Bung adapter, Siphon tube, Weather seal, Base"
DA005-APNN-B-P	Transfer of Oil	Aluminum	Nitrile	1/4"	1/2"	11	Bung adapter, Siphon tube, Seal, Base, 10' Fluid hose, No-Drip Nozzle
612999-5	Waste Oil Evacuation	Polypropylene	Nitrile	1/4"	1/2"	11	Wall mount, Inlet and Outlet fluid hoses
612999-4	Waste Oil Evacuation	Aluminum	Nitrile	1/4"	1"	30	Wall mount, Inlet and Outlet fluid hoses
612999-6	Waste Oil Evacuation	Polypropylene	Nitrile	1/4"	1/2"	11	Hanging bracked and outlet hose, 8' Suction hose
613201-2-C	Calcium Chloride Tire Filling	Aluminum	Neoprene	1/4"	1"	30	Inlet and outlet hoses, Strainer, Control handle, Check valve

# Control Handles

## 635390-22 Digital, Metered Fluid Control Handles

Our metered control handle features a patented oval gear wheel design for precise reliable measurement. Its digital LCD readout operates on two standard alkaline batteries.

- Lightweight
- Precise
- Fast Reset
- Totalizes



## 635383 Metered Flow Control Handles for Motor Oil, Gear Oil, Transmission Fluid

Dispensing valve indicator lets operator see when to stop fluid flow. Totalizer registers up to 9,999 units. All metered control handles include 1/2 inch NPT in-line swivel.



## 635364 Preset, Metered Flow Control Handles for Motor Oil, Gear Oil, Transmission Fluid

Preset unit automatically shuts off when set quantity of fluid is delivered and meter indicator returns to zero. Totalizer registers up to 9,999 units.



## 636111 High-Pressure Grease Control Handles

Dispenses lubricant at line pressure for lubricating grease fittings. Includes inlet material filter and curved nozzle with hydraulic coupler. Remove the 1/8 (M) x 3/8 (M) adaptor for 3/8 (F) porting.



Lubrication Equipment

Model Number	Description	Max. Working Pressure	Fluid Inlet NPT(F)	Fluid Outlet NP	Meter/Totalizing Increments
<b>Motor Oil, Gear Oil, Transmission Fluid</b>					
635193	High Volume Dispensing Handle	600	3/4"	No-drip tip w/ flex hose	-
635392	Dispensing Handle	1000	1/2"	No-drip tip w/ flex hose	-
635390-22	Digital Metered Control Handle	1000	1/2"	No-drip tip	Quarts/Gallons
635391-11	Rigid Control Handle	1000	1/2"	No-drip tip	-
635390-2	Digital Metered Control Handle	1000	1/2"	No-drip tip w/ flex hose	Quarts/Gallons
635391-1	Flex Control Handle	1000	1/2"	No-drip tip w/ flex hose	-
635383	Metered Control Valve	1000	1/2"	No-drip tip w/ flex hose	Quarts/Gallons
635370	Dial Metered Control Handle	1000	1/2"	1/2" NPT"	Quarts/Quarts
635364	Preset Control Handle	1000	1/2"	No-drip tip	Quarts/Gallons
<b>Grease</b>					
636101	High Flow Control Handle	7500	3/8"	1/8" NPT"	-
636111	Standard Control Handle	7500	1/8(M) or 3/8(F)	Hydraulic Coupler	-
636103	Booster Control Handle	7500	1/8(M) or 3/8(F)	Hydraulic Coupler	-

# Lubrication Equipment Accessories

## Grease Gun Accessories

### Hydraulic Adapters

#### 629713

Extra capacity hydraulic extension adapter has flexible rubber hose. Use with standard hydraulic coupler.



#### 636003

Hydraulic adapter has locking sleeve to fit standard diameter coupler.



#### 636039

Hydraulic adapter has locking sleeve for use on nozzle, hose or adapters with 1/8 NPT(M). Push on, pull off connector fits standard diameter hydraulic fitting.



#### 636065

Needle point adapter has rubber tip.



Model Number	Inlet Thread Connection (inches)	Length Inches (mm)	Maximum Working Pressure PSI (bar)
629713	1/8 NPT(M)	12 (304)	5,000 (345)
636003	–	7 (177)	8,000 (552)
636039	1/8 NPT(F)	–	8,000 (552)
636065	–	–	8,000 (552)

### Standard Hydraulic Couplers

#### 636027

Small diameter hydraulic coupler



#### 636028

Reversible jaw hydraulic coupler

636028

#### 636030

Hydraulic coupler and tube



#### 636037

Hydraulic coupler and tube

636046

#### 636046

Small diameter hydraulic coupler with ball check.

Model Number	Inlet Thread Connection (inches)	Length Inches (mm)	Maximum Working Pressure PSI (bar)
636027	1/8 NPT(F)	1-5/8 (41)	6,000 (414)
636028	1/8 NPT(F)	1-5/8 (41)	10,000 (689)
636030	11/16-16(F)	–	–
636037	1/8 NPT(F)	6-1/4 (159)	–
636046	1/8 NPT(F)	1-7/16 (37)	6,000 (414)

## Grease Gun Accessories

### Button Head Coupler

#### 636020

Standard button coupler. Can be converted to either push-on or pull-on.



#### 636024

Standard button coupler. Can be converted to either push-on or pull-on.

636024

#### 636060

Giant button head coupler with pressure relief valve can be converted to either push-on or pull-on.

#### 636019

Giant button head coupler can be converted to either push-on or pull-on. (For hand guns only. Not to be used with air-operated pumps!)

Model Number	Inlet Thread Connection (inches)	Length Inches (mm)	Maximum Working Pressure PSI (bar)
636020	7/16-27(F)	–	8,000 (552)
636024	1/8 NPT(F)	–	8,000 (552)
636060	1/8 NPT(F)	–	8,000 (552)
636019	7/16-27(F)	–	8,000 (552)

# Grease Fittings Accessories

## Straight

Model Number	Description	Thread Size NPT	Height
6000	Straight	1/8 (M)	21/32
6001	Straight	1/8 (M)	1-1/4
6002	Straight	1/8 (M)	1-3/4
6026	Straight	1/4 (M)	7/8
6009	Short straight	1/4-28	17/32
6010	Long straight	1/4-28	11/16
6029	Straight	3/8 (M)	1-1/8
636019	7/16-27(F)	-	8,000 (552)

## Elbow

Model Number	Description	Thread Size NPT	Height
6004	30° elbow	1/8 (M)	29/32
6005	45° elbow	1/8 (M)	7/8
6011	45° elbow (short)	1/4-28	13/16
6006	65° elbow	1/8 (M)	7/8
6028	67-1/2° elbow	1/4 (M)	1-5/32
6007	90° elbow	1/8 (M)	27/32
6013	90° elbow (short)	1/4-28	3/4

## Drive Type Fittings

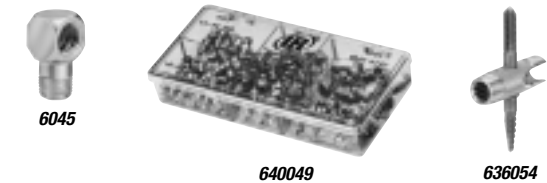
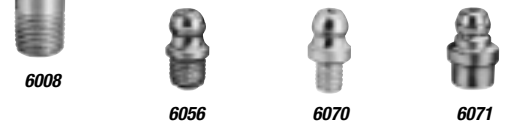
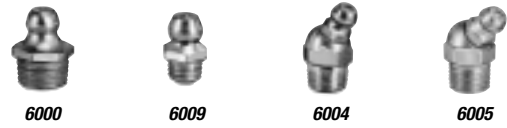
Model Number	Description	Thread Size NPT	Height
6060	Straight	5/16 serrated	5/8
6056	Straight	1/4 serrated	37/64
6069	Straight	3/16 serrated	19/32
6070	Straight (less spring and ball)	3/16 serrated	37/64

## Elbow Bodies

Model Number	Description	Thread Size NPT	Height
6045	90° elbow	1/8 (M) x 1/8 (F)	1

## Button-Head Fittings

Model Number	Description	Thread Size NPT	Height
2087	Standard	1/8 (M)	13/16
6035	Standard	1/4 (M)	27/32
6041	Giant	1/2 (M)	1-3/32



## Grease Fitting Assortment

### 640049

100 piece selection of the most common grease fittings packaged in a 5-compartment plastic container. Includes:

Quantity	Model	Description
20	6000	1/8 NPT (M) Straight
50	6009	1/4-28(M) Short straight
10	6004	1/8 NPT(M) 30°elbow
10	6006	1/8 NPT(M) 65° elbow
10	6013	1/4-28 (M) 90° elbow

## Grease Fitting Easy-Out Tool

### 636053

Four function tool: 1) easy-out for removing broken fittings; 2) 1/8-inch NPT tap; 3) 3/8-inch socket for removing hydraulic fittings; and 4) 7/16-inch socket for removing hydraulic fittings.

### 636054

Four function tool: 1) easy-out for removing broken fittings; 2) 1/4-inch-28 tap; 3) 5/16-inch socket for removing hydraulic fittings; and 4) 3/8-inch socket for removing hydraulic fittings.