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ARO 1:1 Transfer Pumps

**Reliable Design** - ARO 1:1 pumps feature a proven design. They are constructed with fewer parts. Fewer parts means less problems.

**Double-Acting** - All ARO 1:1 piston pumps are double-acting, ensuring high flow rates.

**Long Stroke Piston** - Pumps feature a 6" long stroke design to ensure smooth delivery.

**Divorced Design** - These pumps incorporate a divorced design. The air motor is isolated from the lower pumping assembly. This assures that the materials being pumped do not contaminate the air motor.



Specifications

- Ratio . . . . . 1:1
- Double-acting . . . . . Yes
- Air Motor Diameter . . . . . 2"
- Stroke . . . . . 6"
- Air Inlet. . . . . 1/4"(F)
- Fluid Outlet. . . . . 3/4"(F)
- Pump Style . . . . . Divorced Design
- Free Flow Rating . . . . . 18 GPM
- Working Flow Rating . . . . . 9 GPM
- Air Inlet Pressure . . . . . 0-150 PSI

Fluid Compatibility

- Automatic Transmission Fluid
- Gear Oil
- Hydraulic Oil
- Motor Oil
- Solvents\*
- Synthetic Oil

\*This pump is compatible with many solvents. Please call American Lubrication for specific solvent compatibility recommendations.

Rebuild Kit

- Air Motor . . . . . 637084
- Fluid Section. . . . . 637083

Model Number	Description
612041-3	<b>High-Volume Air-Operated Drum Transfer Pump</b> - 1:1 ratio pump constructed of carbon steel and aluminum with Teflon® packings. Fits 16-gallon and 55-gallon drums with a 2" (F) opening. Includes air inlet needle valve and 2" (M) bung adapter.



# Air-Operated Piston Pumps



## 1:1 Transfer Pumps

**Reliable Design** - Advantage Plus 1:1 pumps feature a proven design. They are constructed with fewer parts. Fewer parts means less problems.

**Double-Acting** - These 1:1 piston pumps are double-acting, ensuring high flow rates.

**Long-Stroke Piston** - These pumps feature a 6" long-stroke design to ensure smooth delivery.

**Bung Adapter** - All Advantage Plus 1:1 pumps include a 2" (M) bung adapter.

**Tapper** - Advantage Plus 1:1 tapper packages include a rugged, heavy-duty tapper assembly with a new splash-reduction adapter.



### Specifications

Ratio	1:1
Double-acting	Yes
Air Motor Diameter	2"
Stroke	6"
Air Inlet	1/4"(F)
Fluid Outlet	3/4"(F)
Free Flow Rating	15 GPM
Working Flow Rating	10 GPM
Air Inlet Pressure	0-115 PSI

### Fluid Compatibility

Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

### Rebuild Kit

Air Motor	4201-50
Fluid Section	4201-60

# Air-Operated Piston Pumps

## Bare 1:1 Pump Models



Model Number	Description
4201	1:1 pump for 16/55-gallon drums.

## 1:1 Tapper Pump Packages



Model Number	Description
4201-T55	<b>16/55-Gallon Tapper Pump Package</b> - Includes Advantage Plus Series 1:1 pump, bung adapter, 210 air coupler, 2608 air connector and TIM-724-1A oil dispensing tapper with splash reduction adapter.

## Accessories

Model Number	Description
TIM-212	<b>1/4" Air Inlet Adapter</b>
P-29122-624	<b>Air Filter/Regulator and Gauge</b> - 1/4" mini filter/regulator with air gauge for use on all 1:1, 3:1 and 5:1 pumps.
25P-29122-624	<b>25 Pack of P-29122-624 Air Filter/Regulator and Gauge.</b> See above.



4201



4201-T55



P-29122-624

# Air-Operated Piston Pumps



## ARO Thunder 3:1 Oil Pumps

**Reliable Design** - Thunder pumps feature a patented, ice-free air motor contained in a rugged housing that is designed to withstand the harshest working environments. ARO is so confident in this design that it is backed by a 5-year warranty.

**Lube-Free Air Motor** - The air valves and the piston are pre-lubricated. Thunder pumps do not require an air line lubricator.

**No Mechanical Assist** - Thunder’s patented valve design uses no trip rods, push pins, or springs. Instead of one mechanical pilot valve in the air motor, Thunder has two independent 3-way spool valves which work together to change the direction of the pump piston.

**In-Line Service** - Thunder 3:1 pumps can be serviced in the tank or drum using just a standard wrench.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Fewer parts means less problems.

**Cost-Effective Design** - Most competitive pumps are too costly to repair after their warranty expires. Thunder’s revolutionary design, inexpensive rebuild kits, and field serviceability all add up to a pump that has the lowest cost of ownership in the lubrication equipment market.



### Specifications

Ratio	3:1
Double-acting	Yes
Air Motor Diameter	2"
Stroke	3"
Air Inlet	1/4"(F)
Fluid Outlet	1/2"(F)
Fluid Inlet (stub)	3/4"(F)
Free Flow Rating	9 GPM
Working Flow Rating	6 GPM
Air Inlet Pressure	0-150 PSI
Cycles Per Gallon	37
Noise Level @ 100 PSI	80 db

### Fluid Compatibility

- Automatic Transmission Fluid
- Gear Oil
- Hydraulic Oil
- Motor Oil
- Synthetic Oil

### Rebuild Kit

Part Number .....637224

# Air-Operated Piston Pumps

## ARO Thunder 3:1 Oil Pumps

### Stub Pump Models



Model Number	Air Coupler	Air Connector	Air Hose	Material Hose
LM-2203A-11C*	--	--	--	--
LM-2203A-C*	210	2608	--	--
LM-2203A-H*	210	2608	TIM-4214-3	TIM-4418-4



LM-2203A-11C

### Stub Pump Installation Package



Model Number	Description
LM-2203A-COMP*	<b>Complete 3:1 Stub Pump Installation Kit</b> - Includes LM-2203A-H stub pump, P-29122-624 fil/reg/gauge, TIM-212 nipple, TIM-196-C check valve and TIM-2000-4 pressure relief kit.

### Tank & Drum Pump Models



Model Number	Description
LM-2203A-31C*	<b>3:1 Pump for 16-gallon drum (built-in check valve).</b>
LM-2203A-41C*	<b>3:1 Pump for 55-gallon drum (built-in check valve).</b>
LM-2203A-51C*	<b>3:1 Pump for 275-gallon obround horizontal tank (built-in check valve).</b>

LM-2203A-41C

### Portable Pump Packages



Model Number	Description
LP-2100-1*	<b>16-Gallon Portable Gear Oil Package</b> - Includes Thunder 3:1 pump, check valve, drum cover, digital meter, 6' material hose, control handle and platform dolly. Digital meter can be programmed to measure in pints, quarts, gallons and liters. Meter is pre-programmed in pints.



LP-2100-1  
(Drum not included)

\*Includes bung adapter 67145-3B. For weather tight applications order bung adapter 67088-3 separately, page 36.

# Air-Operated Piston Pumps



## Thunder 3:1 Tapper Pumps

**Versatile** - If your customer's needs change, just remove the tap- per and the pump can be used for pumping to remote overhead reel applications.

**Complete Packages** - All tapper pump packages include 3:1 pump, bung adapter, air filter/regulator/gauge, air coupler, air connector and taper valve assembly.

**Reliable Design** - Thunder pumps feature a patented, ice-free air motor contained in a rugged housing that is designed to withstand the harshest working environments.

**Lube-Free Air Motor** - The air valves and the piston are pre-lubri- cated. Thunder pumps do not require an air line lubricator.

**In-Line Service** - Thunder 3:1 pumps can be serviced in the tank or drum using just a standard wrench.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Fewer parts means less problems.

**Tapper** - All tapper packages include a rugged, heavy-duty taper assembly with a new splash-reduction adapter.



### Specifications

Ratio . . . . .	3:1
Double-acting . . . . .	Yes
Air Motor Diameter . . . . .	2"
Stroke . . . . .	3"
Air Inlet. . . . .	1/4"(F)
Fluid Outlet. . . . .	1/2"(F)
Fluid Inlet (stub). . . . .	3/4"(F)
Working Flow Rating . . . . .	2-1/2 GPM
Air Inlet Pressure . . . . .	0-150 PSI
Cycles Per Gallon. . . . .	37
Noise Level @ 100 PSI . . . . .	80 db

### Fluid Compatibility

- Automatic Transmission Fluid
- Gear Oil
- Hydraulic Oil
- Motor Oil
- Synthetic Oil

### Pump Rebuild Kit

Part Number . . . . .637224

# Air-Operated Piston Pumps

## Thunder 3:1 Tapper Pumps

### Stub Pump Model



Model Number	Description
<b>TIM-728-2*</b>	<b>Stub Pump Tapper Package</b> - Includes Thunder 3:1 ratio pump, bung adapter, 1/4" nipple, air filter/regulator and gauge, air coupler, air connector and oil dispensing tapper with splash reduction adapter.



TIM-728-2

### 55-Gallon Model



Model Number	Description
<b>TIM-726-2*</b>	<b>55-Gallon Tapper Package</b> - Includes Thunder 3:1 ratio pump, bung adapter, downtube, 1/4" nipple, air filter/regulator and gauge, air coupler, air connector and oil dispensing tapper with splash reduction adapter.



TIM-726-2

### 275-Gallon Model



Model Number	Description
<b>TIM-727-2*</b>	<b>275-Gallon Tapper Package</b> - Includes Thunder 3:1 ratio pump, bung adapter, downtube, 1/4" nipple, air filter/regulator and gauge, air coupler, air connector and oil dispensing tapper with splash reduction adapter. Designed to be used on 275-gallon obround horizontal tanks.

\*Includes bung adapter 67145-3B. For weather tight applications order bung adapter 67088-3 separately, page 36.



# Air-Operated Piston Pumps



## ARO Thunder 5:1 Oil Pumps

**Reliable Design** - Thunder pumps feature a patented, ice-free air motor contained in a rugged housing that is designed to withstand the harshest working environments. ARO is so confident in this design that it is backed by a 5-year warranty.

**Lube-Free Air Motor** - The air valves and the piston are pre-lubricated. Thunder pumps do not require an air line lubricator.

**No Mechanical Assist** - Thunder’s patented valve design uses no trip rods, push pins, or springs. Instead of one mechanical pilot valve in the air motor, Thunder has two independent 3-way spool valves which work together to change the direction of the pump piston.

**In-Line Service** - Thunder 5:1 pumps can be serviced in the tank or drum using just a standard wrench.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Fewer parts means less problems.

**Cost-Effective Design** - Most competitive pumps are too costly to repair after their warranty expires. Thunder’s revolutionary design, inexpensive rebuild kits, and field serviceability all add up to a pump that has the lowest cost of ownership in the lubrication equipment market.



### Specifications

Ratio.....	5:1
Double-acting.....	Yes
Air Motor Diameter.....	3"
Stroke.....	3"
Air Inlet.....	1/4"
Fluid Outlet.....	1/2"
Fluid Inlet (stub).....	1-1/2"(F)
Free Flow Rating.....	9 GPM
Working Flow Rating.....	6 GPM
Air Inlet Pressure.....	0-150 PSI
Cycles Per Gallon.....	28
Noise Level @ 100 PSI.....	85 db

### Fluid Compatibility

- Automatic Transmission Fluid
- Gear Oil
- Hydraulic Oil
- Motor Oil
- Synthetic Oil

### Rebuild Kit

Part Number..... 637226

# Air-Operated Piston Pumps

## ARO Thunder 5:1 Oil Pumps

### Stub Pump Models



Model Number	Air Coupler	Air Connector	Air Hose	Material Hose
LM-2305A-11B*	--	--	--	--
LM-2305A-C*	210	2608	--	--
LM-2305A-H*	210	2608	TIM-4214-3	TIM-4418-4



LM-2305A-11B

### Stub Pump Installation Package



Model Number	Description
LM-2305A-COMP*	<b>Complete 5:1 Stub Pump Installation Kit</b> - Includes LM-2305A-H stub pump, P-29122-624 fil/reg/gauge, TIM-212 nipple, TIM-166-LLC low-level cutoff and TIM-2000-4 pressure relief kit.

### Tank & Drum Pump Models



Model Number	Description
LM-2305A-31B*	<b>5:1 Pump for 16-gallon drum (includes low-level cutoff).</b>
LM-2305A-41B*	<b>5:1 Pump for 55-gallon drum (includes low-level cutoff).</b>
LM-2305A-51B*	<b>5:1 Pump for 275-gallon obround horizontal tank (includes low-level cutoff).</b>

LM-2305A-41B

### Portable Pump Packages



Model Number	Description
LP-3100-1*	<b>16-Gallon Portable Gear Oil Package</b> - Includes Thunder 5:1 pump, low-level cutoff, drum cover, digital meter, 6' material hose, control handle and platform dolly. Digital meter can be programmed to measure in pints, quarts, gallons and liters. Meter is pre-programmed in pints.



LP-3100-1  
(drum not included)

\*Includes bung adapter 67145-4B. For weather tight applications order bung adapter 67088-4 separately, page 36.



# Air-Operated Piston Pumps



## ARO 4-1/4" Oil Pumps

**Reliable Design** - Series 425 pumps are a time-tested design providing years of trouble-free service. ARO is so confident in this design that it is backed by a 5-year warranty.

**Heavy-Duty Construction** - These oil pumps are designed for long distance, heavy viscosity oils, industrial installations and cold weather applications.

**Stress-Free Performance** - 4" stroke and easy 21 cycles per gallon dispensing rate lead to long service-free pump life.

**Positive Shift Air Motor** - Positive mechanical/pneumatic shift motor provides stall-free operation. (Order air lubricator L-26241-110 separately, page 106.)

**9:1 & 10:1 Ratio** - ARO 4-1/4" pumps are ideal in systems requiring long piping runs.

**Muffler** - Exhaust can also be ported to a remote location for quieter operation. (Order optional air motor muffler 91790 separately, page 36.)



### Specifications

Ratio.....	9:1
Ratio (613100-1).....	10:1
Double-acting.....	Yes
Air Motor Diameter.....	4-1/4"
Stroke.....	4"
Air Inlet.....	1/2"
Air Lubricator.....	Required
Fluid Outlet.....	3/4"
Fluid Outlet (613100-1).....	3/8"
Fluid Inlet (stub)...	2"(F) or 1-1/2"(M)
Fluid Inlet (613100-1).....	Barbed
Free Flow Rating.....	21 GPM
Working Flow Rating.....	4 GPM
Air Inlet Pressure.....	0-150 PSI

### Fluid Compatibility

- Antifreeze\*
- Automatic Transmission Fluid
- Gear Oil
- Hydraulic Oil
- Motor Oil
- Synthetic Oil

\*The only pump compatible with antifreeze, on pages 12 and 13 is model number 613100-1

## ARO 4-1/4" 9:1 Pumps

### Bare Oil Pump Models



Model Number	Description
<b>662420-B*</b>	<b>9:1 Stub pump</b>
<b>662409*</b>	<b>9:1 Pump for 16-gallon drum (built-in check valve).</b>
<b>662410-B*</b>	<b>9:1 Pump for 55-gallon drum (built-in check valve).</b>

\*Series 425 pumps are designed for mounting directly to standard containers using bung adapter 60870 (order separately, page 36). This series of pumps requires the use of L-26241-110 air lubricator (order separately, page 106).

### Bare Antifreeze Pump Model



Model Number	Description
<b>613100-1*</b>	<b>10:1 Stainless Steel Stub Pump for Antifreeze and Antifeeze Mixtures.</b> Pump has 3/8" hose barbed inlet for easy connection to suction hose. When using in 55-gallon drum applications, order part number 61139-1 suction tube assembly separately.

\*Series 425 pumps are designed for mounting directly to standard containers using bung adapter 60870 (order separately, page 36). This series of pumps requires the use of L-26241-110 air lubricator (order separately, page 106).

### Oil Pump Packages



Model Number	Description
<b>612729**</b>	<b>Stub Pump Package</b> - Includes 662420-B pump with L-26241-110 air lubricator, Y-27-54C nipple, TIM-1404-1212 union adapter, 621501-3 air hose (3') and 624601-4 material hose (4') .
<b>612722</b>	<b>55-Gallon Drum Pump Package</b> - Includes 662410-B pump with L-26241-110 air lubricator, TIM-4258-5 air hose (5'), TIM-4418-8 material hose (8') and 60870 bung adapter.

\*\*Series 425 pumps are designed for mounting directly to standard containers using bung adapter 60870 (order separately, page 36).



662420-B



662410-B



613100-1  
(antifreeze pump)

# Air-Operated Piston Pumps



## ARO Thunder 2" 50:1 Grease Pumps

**Reliable Design** - Thunder pumps feature a patented, ice-free air motor contained in a rugged housing that is designed to withstand the harshest working environments. ARO is so confident in this design that it is backed by a 5-year warranty.

**Protected Inlet Tube** - Thunder 2" grease pumps have 5/16" inlet holes in the sides of the bottom of the pick up tube. This helps eliminate problems caused by sucking plastic grease drum liners into the pump's lower section.

**Lube-Free Air Motor** - The air valves and the piston are pre-lubricated. Thunder pumps do not require an air line lubricator.

**No Mechanical Assist** - Thunder's patented valve design uses no trip rods, push pins, or springs. Instead of one mechanical pilot valve in the air motor, Thunder has two independent 3-way spool valves which work together to change the direction of the pump piston.

**In-Line Service** - Thunder 2" grease pump air motors can be serviced in the drum using just a standard wrench.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Fewer parts means less problems.

**Cost-Effective Design** - Most competitive pumps are too costly to repair after their warranty expires. Thunder's revolutionary design, inexpensive rebuild kits, and field serviceability all add up to a pump that has the lowest cost of ownership in the lubrication equipment market.



### Specifications

Ratio	50:1
Double-acting	Yes
Air Motor Diameter	2"
Stroke	3"
Air Inlet	1/4"
Material Outlet	3/8"
Free Flow Rating	9 lbs/min
Working Flow Rating	2 lbs/min
Air Inlet Pressure	0-150 PSI
Noise Level @ 100 PSI	85 db

### Grease Compatibility

- NLGI 0 Grease
- NLGI 1 Grease
- NLGI 2 Grease
- NLGI 3 Grease

### Rebuild Kit

Part Number 637332

# Air-Operated Piston Pumps

## ARO Thunder 2" 50:1 Grease Pumps

### Bare Pump Models



Model Number	Description
LM-2250E-21B*	50:1 Grease pump for 35-lb container.
LM-2250E-31B*	50:1 Grease pump for 120-lb container.



LM-2250E-31B



LP-2004-1B  
(drum not included)

### Stationary Pump Packages



Model Number	Description
LP-2001-1B*	<b>35-lb. Grease Package</b> - Includes LM-2250E-21B pump, 94420 drum cover, 94334 carry handle and 640095-2B follower plate.
LP-2003-1B*	<b>120-lb. Grease Package</b> - Includes LM-2250E-31B pump, 94421 drum cover and 640165 follower plate.
LP-2004-1B*	<b>120-lb. Grease Package</b> - Includes LM-2250E-31B pump, 94421 drum cover, 640165 follower plate, 72290 adapter, 624201-6 material hose (6'), 636077 Z-swivel and 636111 control handle.



LP-2002-1B  
(drum not included)

### Portable Pump Packages



Model Number	Description
LP-2002-1B*	<b>35-lb. Grease Package</b> - Includes LM-2250E-21B pump, 94420 drum cover, 94334 carry handle, 640095-2B follower plate, 72290 adapter, 624201-10 material hose (10'), 636077 Z-swivel and 636111 control handle.
LP-2006-1B*	<b>120-lb. Grease Package</b> - Includes LM-2250E-31B pump, 94421 drum cover, 640165 follower plate, 72290 adapter, 624201-6 material hose (6'), 636077 Z-swivel, 636111 control handle and 640058-2 band dolly.



LP-2006-1B  
(drum not included)

\*All pumps include bung adapter 67145-2. For weather tight applications order seal kit 67088 separately, page 36.

# Air-Operated Piston Pumps



## Advantage Plus 2-1/2" 50:1 Grease Pumps

**Reliable Design** - Advantage Plus Grease pumps feature a "double toggle" time-tested air motor.

**Heavy-Duty Construction** - Advantage Plus grease pumps are built from the finest materials available, ensuring years of trouble-free service. Both the drum cover and follower plate are constructed from durable, heavy-gauge steel.

**Durable Finish** - Both the air motor and the downtube are finished with an attractive chrome finish.

**Cost Effective Design** - These pumps are the most cost effective solution for grease dispensing applications.

**Spring-Loaded Follower** - The 120-lb. follower plate design incorporates a unique spring-loaded design to ensure the pump retains its prime. This spring also lessens the chance of the follower plate being accidentally thrown away with an empty grease drum.

**Low Cost Accessories** - Both the drum covers and follower plates in this line are priced at extremely competitive levels, allowing you to offer a cost effective grease dispensing system.



### Specifications

Ratio	50:1
Double-acting	Yes
Air Motor Diameter	2-1/2"
Air Inlet	1/4"
Material Outlet	3/8"
Working Flow Rating	2.5 lbs/min
Air Inlet Pressure	0-125 PSI
Grease Compatibility	NLGI 0-2

### Grease Compatibility

- NLGI 0 Grease
- NLGI 1 Grease
- NLGI 2 Grease

### Rebuild Kit

Part Number . . . . . TIM-9000-KIT3

# Air-Operated Piston Pumps

## 50:1 Grease Pumps

### Bare Pump Models



Model Number	Description
<b>TIM-9001-B</b>	<b>50:1 Grease pump for 35-lb container.</b> Pump bolts directly to drum cover.
<b>TIM-9000-B</b>	<b>50:1 Grease pump for 120-lb container.</b> Pump bolts directly to drum cover.
<b>TIM-9004-B</b>	<b>50:1 Grease pump for 400-lb container with bung adapter.</b>



TIM-9000-B

### Stationary Pump Packages



Model Number	Description
<b>TIM-9000-S</b>	<b>50:1 120-lb. Grease Package</b> - Includes TIM-9000-B pump, TIM-9000-6 drum cover, TIM-9000-7 spring-loaded follower plate, TIM-9000-3 air hose (3') and TIM-9000-5GR material hose (5').
<b>TIM-9004-S</b>	<b>50:1 400-lb. Grease Package</b> - Includes TIM-9004-B pump, TIM-9003-6 drum cover and TIM-9003-8 follower plate.



TIM-9000-S

### Portable Pump Packages



Model Number	Description
<b>TIM-9001</b>	<b>35-lb. Portable Grease Pump Package</b> - Includes 50:1 TIM-9001-B pump, TIM-9001-6 drum cover, TIM-9001-8 follower plate, TIM-9000-HOSE 10' material hose, TIM-114 Z-swivel and TIM-791 control handle. (Drum not included.)
<b>TIM-9000</b>	<b>120-lb. Portable Grease Pump Package</b> - Includes 50:1 TIM-9000-B pump, TIM-9000-6 drum cover, deluxe TIM-9000-7 spring-loaded follower plate, TIM-9000-HOSE 10' material hose, TIM-114 Z-swivel, TIM-791 control handle and TIM-352 platform dolly. (Drum not included.)



TIM-9000  
(drum not included)



TIM-9001  
(drum not included)



# Air-Operated Piston Pumps



## Advantage Plus 3" 70:1 Grease Pumps

**Reliable Design** - Advantage Plus grease pumps feature a "double toggle" time-tested air motor.

**70:1 Ratio** - 70:1 Advantage Plus grease pumps are perfect for applications where low air pressure or cold temperatures are a concern.

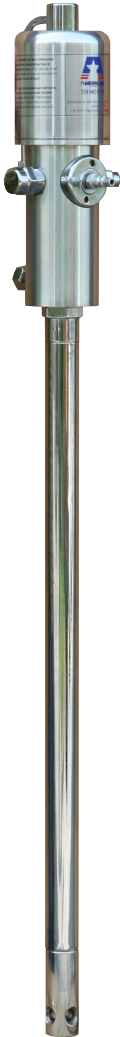
**Heavy-Duty Construction** - Advantage Plus grease pumps are built from the finest materials available, ensuring years of trouble-free service. Both the drum cover and follower plate are constructed from durable, heavy-gauge steel.

**Durable Finish** - The air motor and the downtube have an attractive chrome finish.

**Cost Effective Design** - These pumps are the most cost effective solution for grease dispensing applications.

**Spring-Loaded Follower** - The 120-lb. follower plate design incorporates a unique spring-loaded design to ensure the pump retains its prime. This spring also lessens the chance of the follower plate being accidentally thrown away with an empty grease drum.

**Low Cost Accessories** - Both the drum covers and follower plates in this line are priced at extremely competitive levels, allowing you to offer a very cost effective grease dispensing system.



### Specifications

Ratio . . . . .	70:1
Double-acting . . . . .	Yes
Air Motor Diameter . . . . .	3"
Air Inlet . . . . .	1/4"
Material Outlet . . . . .	3/8"
Working Flow Rating . . . . .	2 lbs/min
Air Inlet Pressure . . . . .	0-125 PSI

### Grease Compatibility

- NLGI 0 Grease
- NLGI 1 Grease
- NLGI 2 Grease
- NLGI 3 Grease

### Rebuild Kit

Part Number . . . . . TIM-9003-KIT3

## 70:1 Grease Pumps

### Bare Pump Models



Model Number	Description
<b>TIM-9002-B*</b>	<b>70:1 Grease pump for 120-lb container with bung adapter.</b>
<b>TIM-9003-B*</b>	<b>70:1 Grease pump for 400-lb container with bung adapter.</b>



TIM-9002-B

### Stationary Pump Packages



Model Number	Description
<b>TIM-9002-S*</b>	<b>70:1 120-lb. Grease Package</b> - Includes TIM-9002-B pump, TIM-9000-6 drum cover and TIM-9000-7 spring-loaded follower plate, TIM-9000-3AIR air hose (3') and TIM-9000-5GR material hose (5').
<b>TIM-9003-S*</b>	<b>70:1 400-lb. Grease Package</b> - Includes TIM-9003-B pump, TIM-9003-6 drum cover and TIM-9003-8 follower plate.



TIM-9002-S

**\*WARNING:** Advantage Plus 70:1 pumps can deliver pressures in excess of the rated capacity of the accessories shown in this catalog. These 70:1 pumps can only be used in permanently installed systems where the pump is connected directly to piping with a proper rating for the application.



# Air-Operated Piston Pumps



## ARO Thunder 3" 50:1 Grease Pumps

**Reliable Design** - Thunder pumps feature a patented, ice-free air motor contained in a rugged housing that is designed to withstand the harshest working environments. ARO is so confident in this design that it is backed by a 5-year warranty.

**Protected Inlet Tube** - Thunder 3" grease pumps have 5/16" inlet holes in the sides of the bottom of the pick up tube. This helps eliminate problems caused by sucking plastic grease drum liners into the pump's lower unit.

**Lube-Free Air Motor** - The air valves and the piston are pre-lubricated. Thunder pumps do not require an air line lubricator.

**No Mechanical Assist** - Thunder's patented valve design uses no trip rods, push pins, or springs. Instead of one mechanical pilot valve in the air motor, Thunder pumps have two independent 3-way spool valves which work together to change the direction of the pump piston.

**In-Line Service** - Thunder 3" grease pump air motors can be serviced in the drum using just a standard wrench.

**Fewer Parts** - Thunder pumps are constructed with 50% fewer parts than the majority of comparable pumps. Fewer parts means less problems.

**Cost-Effective Design** - Most competitive pumps are too costly to repair after their warranty expires. Thunder's revolutionary design, inexpensive rebuild kits, and field serviceability all add up to a pump that has the lowest cost of ownership in the lubrication equipment market.



### Specifications

Ratio	50:1
Double-acting	Yes
Air Motor Diameter	3"
Stroke	3"
Air Inlet	1/4"(F)
Material Outlet	3/8"(F)
Free Flow Rating	7.5 lbs/min
Working Flow Rating	4 lbs/min
Air Inlet Pressure	0-150 PSI
Noise Level @ 100 PSI	85 db

### Grease Compatibility

NLGI 0 Grease
NLGI 1 Grease
NLGI 2 Grease
NLGI 3 Grease

### Rebuild Kit

Part Number	637227-B
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# Air-Operated Piston Pumps

## ARO Thunder 3" 50:1 Grease Pumps

### Bare Pump Models



Model Number	Description
LM-2350E-21B*	50:1 Grease pump for 35-lb container.
LM-2350E-31B*	50:1 Grease pump for 120-lb container.
LM-2350E-41B*	50:1 Grease pump for 400-lb container.



LM-2350E-31B

### Stationary Pump Packages



Model Number	Description
LP-3002-1*	<b>120-lb. Grease Package</b> - Includes LM-2350E-31B pump, 94421 drum cover, 640165 follower-plate, TIM-4516-4 material hose (4') and TIM-4214-3 air hose (3').
LP-3005-1*	<b>400-lb. Grease Package</b> - Includes LM-2350E-41B pump, 94422 drum cover, TIM-4516-4 material hose (4') and TIM-4214-3 air hose (3'). Order follower-plate 640015-1 separately.



LP-3001-1  
(drum not included)

### Portable Pump Packages



Model Number	Description
LP-3001-1*	<b>35-lb. Grease Package</b> - Includes LM-2350E-21B pump, 94420 drum cover, 94334 carry handle, 640095-2B follower plate, 76493 adapter, 624201-10 material hose (10'), 636077 Z-swivel and 636103 booster control handle.
LP-3003-1*	<b>120-lb. Grease Package</b> - Includes LM-2350E-31B pump, 94421 drum cover, 640165 follower plate, 76493 adapter, 624201-10 material hose (10'), 636077 Z-swivel, 636103 booster control handle and 640058-2 band dolly.
LP-3004-1*	<b>120-lb. Grease Package</b> - Includes LM-2350E-31B pump, 94421 drum cover, 640165 follower plate, 76493 adapter, 624201-10 material hose (10'), 636077 Z-swivel, 636111 control handle and 640058-2 band dolly.



LP-3004-1  
(drum not included)

\*All pumps include bung adapter 67145-2. For weather tight applications order seal kit 67088 separately, page 36.

# Air-Operated Piston Pumps



## ARO 4-1/4" Grease Pumps

**Reliable Design** - Series 425 pumps are a time-tested design providing years of trouble-free service. ARO is so confident in this design that it is backed by a 5-year warranty.

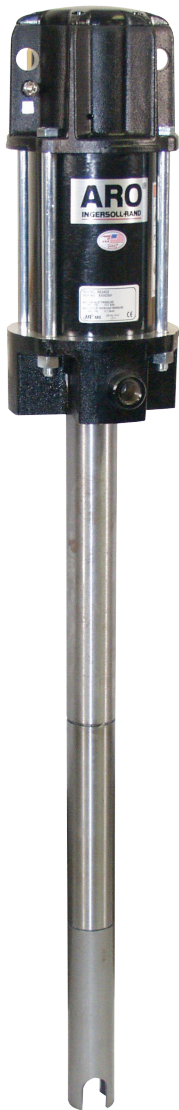
**Heavy-Duty Construction** - These grease pumps are designed for long distance, heavy greases, industrial installations, and cold weather applications.

**Stress-Free Performance** - 4" stroke and easy 12.5 cycles per pound dispensing rate lead to long service-free pump life.

**Positive Shift Air Motor** - Positive mechanical/pneumatic shift motor provides stall-free operation. (Order required air lubricator L-26241-110 separately, page 106.)

**Hi-Flow** - ARO 4-1/4" grease pumps are ideal for use in applications where higher grease volume is required.

**Muffler** - Exhaust can also be ported to a remote location for quieter operation. (Order optional air motor muffler 91790 separately, page 36.)



### Specifications

Ratio	50:1
Double-acting	Yes
Air Motor Diameter	4-1/4"
Stroke	4"
Air Inlet	1/2"(F)
Air Lubricator	Required
Material Outlet	1/2"(F)
Free Flow Rating	12 lbs/min
Working Flow Rating	6 lbs/min
Air Inlet Pressure	0-150 PSI

### Grease Compatibility

- NLGI 0 Grease
- NLGI 1 Grease
- NLGI 2 Grease
- NLGI 3 Grease

### Rebuild Kit

Air Motor Part Number 61052

## ARO 4-1/4" Grease Pumps

### Bare Pump Models



Model Number	Description
662402*	4-1/4" 50:1 Grease Pump For 120-lb Container.
662400-C*	4-1/4" 50:1 Grease Pump For 400-lb Container.

\*Order required air lubricator separately (L-26241-110, page 106).



662402

### Pump Packages



Model Number	Description
612721	<b>400-lb. Grease Package</b> - Includes 662400-C pump, TIM-4258-5 air hose (5'), TIM-4516-8 material hose (8') and 4148 bung adapter. (Order follower plate 640015-2, page 39 and air lubricator L-26241-110, page 106 separately.)
612805	<b>400-lb. Grease Package</b> - Includes 662400-C pump, L-26241-110 air lubricator, TIM-4258-5 air hose (5'), TIM-4516-8 material hose (8') and 60898 drum cover. (Order follower plate 640015-2, page 39 separately.)



612805

# Air-Operated Piston Pumps



## ARO 6" Grease Pumps

**Reliable Design** - Series 600 pumps are a time-tested design providing years of trouble-free service. ARO is so confident in this design that it is backed by a 5-year warranty.

**Heavy-Duty Construction** - These grease pumps are designed for pumping long distances, heavy greases, industrial installations and cold weather applications.

**100:1 Ratio** - ARO 6" 100:1 grease pumps are perfect for applications where low air pressure or cold temperatures are a concern.

**Positive Shift Air Motor** - Positive mechanical/pneumatic shift motor provides stall-free operation.

**Muffler** - Exhaust can also be ported to a remote location for quieter operation. (Order optional air motor muffler 91790 separately, page 36.)



### Specifications

Ratio	100:1
Double-acting	Yes
Air Motor Diameter	6"
Stroke	4"
Air Inlet	1/2"(F)
Air Lubricator	Required
Material Outlet	1/2"(F)
Free Flow Rating	2.1 lbs/min
Working Flow Rating	1 lb/min
Air Inlet Pressure	0-100 PSI

### Grease Compatibility

NLGI 0 Grease
NLGI 1 Grease
NLGI 2 Grease
NLGI 3 Grease

### Rebuild Kit

Air Motor	61355
Packing Kit	65130

# Air-Operated Piston Pumps

## ARO 6" Grease Pumps

### Basic Pump Models

**YEAR** **5**  
**WARRANTY**

Model Number	Description
<b>662605*</b>	<b>6" 100:1 Grease Pump for 120-lb Container</b> - Includes filter/regulator/ lubricator and air gauge (C-28241-810).
<b>662608*</b>	<b>6" 100:1 Grease Pump for 400-lb Container</b> - Includes filter/regulator/ lubricator and air gauge (C-28241-810).



662605

### Pump Packages

**YEAR** **5**  
**WARRANTY**

Model Number	Description
<b>662606*</b>	<b>120-lb. Grease Package</b> - Includes 662605 pump, C-28241-810 air filter/regulator/ lubricator and gauge, 66715 drum cover and 640152-1 follower plate.
<b>662609*</b>	<b>400-lb. Grease Package</b> - Includes 662608 pump, C-28241-810 air filter/regulator/ lubricator and gauge, 71060 drum cover, 60870 bung adapter and 640015-5 follower plate.



662606

**\*WARNING:** ARO 6" 100:1 pumps deliver pressures up to 10,000 PSI which is in excess of the rated capacity of the accessories shown in this catalog. These 100:1 pumps can only be used in permanently installed systems where the pump is connected directly to piping with a proper rating for the application.



# On-Demand Electric Oil Pumps

## ESQ Series

**Efficient** - Pumps are up to 90% more energy efficient than air-operated pumps.

**Smooth** - These non-pulsing pumps offer the smoothest oil delivery available.

**Quiet** - E.S.Q. series pumps are much quieter than piston pumps, drastically reducing shop noise. Noise level is below 65 db.

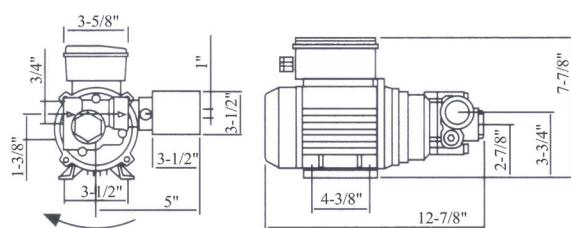
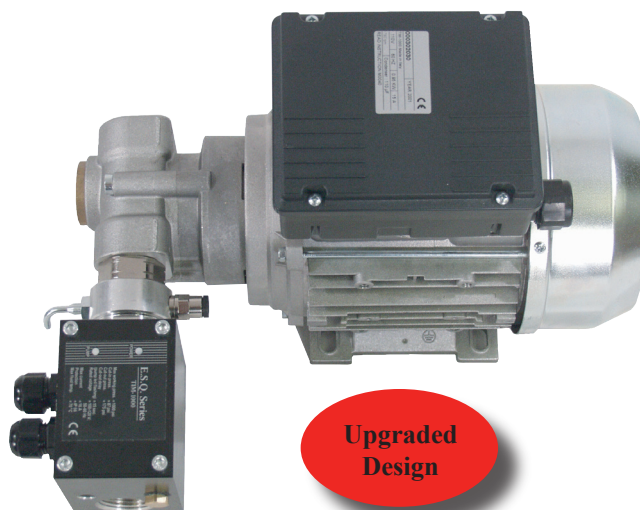
**Reliable Design** - Electric pumps eliminate the problems commonly caused by contaminated, moisture-laden air supplies.

**Affordable** - E.S.Q. pumps eliminate the need for air lines, filters, regulators, lubricators, couplers, connectors, foot valves and relief kits.

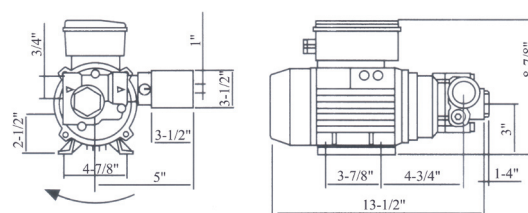
**Internal Thermal Relief** - Pumps have an internal thermal relief valve to prevent the potentially harmful effects of thermal expansion.

**Built-In Pressure Switch** - Built-in pressure switch senses oil demand, automatically turning the pump off and on.

**Integrated Mounting Bracket** - Integrated bracket simplifies mounting.



TIM-1000-A



TIM-1010-A  
TIM-1020-A

### Specifications

Motor	Self-ventilated closed motor
Current	110 Volt AC
H.P.	See page 27
Power Cord	5' 3-Prong plug
Pump Style	Gear type
Noise Level	Less than 65 db
Material Inlet	3/4"
Material Outlet	1"
Working Pressure	See page 27
Working Flow	See page 27

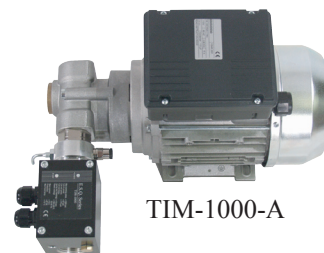
### Fluid Compatibility

Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

# On-Demand Electric Oil Pumps

## On-Demand 110 VAC Electric Pump Models

Model Number	Similar Application	Average PSI	Working Flow	Voltage	Amps	H.P.	Inlet (F)	Outlet (F)
<b>TIM-1000-A*</b>	3:1 Piston Pump	175	3.5 GPM	110 VAC	15.0	3/4	3/4"	1"
<b>TIM-1010-A*</b>	High Flow Piston Pump	250	5.0 GPM	110 VAC	13.5	1	3/4"	1"
<b>TIM-1020-A*</b>	5:1 Piston Pump	375	3.5 GPM	110 VAC	13.0	1	3/4"	1"



\*The internal pressure relief system vents thermal pressure build-up through the downtube. Using a check or foot valve on the pump inlet or the pump downtube can damage the pump.

## Tank Mounting Adapter

Model Number	Description
<b>TIM-173</b>	3/4" x 2" double-tap bushing simplifies mounting of E.S.Q. electric pumps to a 2" NPT (F) opening. Just add a 3/4" downtube (page 35) matched to the correct tank height and an inlet suction hose from below.



TIM-173

## Inlet Suction Hoses - 3/4" ID

Model Number	Length	Connection	Maximum PSI
<b>TIM-1000-IN3</b>	3'	3/4" (M) x 3/4" Swivel (M)	300
<b>TIM-1000-IN5</b>	5'	3/4" (M) x 3/4" Swivel (M)	300
<b>TIM-1000-IN7</b>	7'	3/4" (M) x 3/4" Swivel (M)	300



TIM-1000-IN3

## Outlet Hoses - 1/2" ID

Model Number	Length	Connection	Maximum PSI
<b>TIM-1000-OUT2</b>	2'	1" (M) x 1/2" 90° Swivel (M)	2,500
<b>TIM-1000-OUT4</b>	4'	1" (M) x 1/2" Swivel (M)	2,500
<b>TIM-1000-OUT6</b>	6'	1" (M) x 1/2" Swivel (M)	2,500



TIM-1000-OUT4



# Diaphragm Pumps



## ARO 1/2" - 2" Diaphragm Pumps

**Patented Air Valve** - ARO's patented "unbalanced" air valve design eliminates stalling, a common occurrence in competitive pumps.

**Hi- Flow** - These pumps offer high-volume delivery of material even at low air pressures.

**Runs Dry** - ARO diaphragm pumps can run dry without any damage to the pump.

**Bolted Construction** - Pumps feature bolted construction to avoid the proven problems created by band clamp type pump fasteners.

**Lube-Free Air Motor** - ARO diaphragm pumps are pre-lubricated. They do not require an air lubricator, eliminating maintenance concerns. (The use of a lubricator is not recommended.)

**Variable Flow Rate** - Adjusting the air pressure to the pump allows precise control over the pump's flow rate without damaging the pump.

**Simple Design** - Provides trouble-free operation and virtually maintenance-free performance.

**Variety\*** - ARO diaphragm pumps are available in metallic and composite bodies, single and multiple-port designs, and many different ball, seat, and diaphragm configurations to suit your application.



66605J-322



666100-3C9C



650715-C



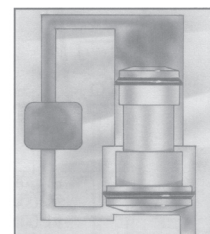
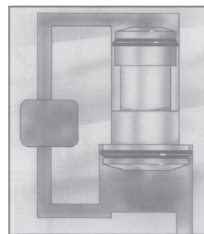
PD-20A AAP-GGG

### Fluid Compatibility

Antifreeze  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil  
Waste Oil  
Windshield Washer Fluid

\*ARO has a complete line of diaphragm pumps to handle most product pumping applications. Please call American Lubrication for recommendations on fluids not listed above.

### "Unstallable" Air Valve



ARO's patented "unbalanced" major air valve has constant air pressure applied to its small end. This assures that the pump resets. Competitive designs lose their signal during every shift, making them vulnerable to stalling. To reverse the valve, air pressure is supplied to the larger end of the valve, allowing the valve to shift - note that constant air pressure continues to be applied to the small end.

## 1/2" Diaphragm Pump



Model Number	Ball	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlet & Outlet (F)	Air Maximum PSI	GPM Max
<b>66605J-344*</b>	Teflon®	Teflon®	Polypropylene	1/4"	1/2"	100	13 GPM
<b>66605J-322*</b>	Nitrile	Nitrile	Polypropylene	1/4"	1/2"	100	13 GPM
<b>PD-05PAAS-PGG</b>	Nitrile	Nitrile	Aluminum	1/4"	1/2"	100	13 GPM

\*Not recommended for oil use in a "closed" system (where the pump remains pressurized when not in use) without thermal relief kit model number TIM-RELIEF-KIT.

## 1" Diaphragm Pump



Model Number	Ball	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlet & Outlet (F)	Air Maximum PSI	GPM Max
<b>666100-344C</b>	Teflon®	Teflon®	Aluminum	1/4"	1"	120	35 GPM
<b>666100-3C9C*</b>	Hytrel®	Hytrel®	Aluminum	1/4"	1"	120	35 GPM

\*This pump replaces 666100-362C. The Hytrel® material prolongs the pump's longevity.

## 1" 50/50 Antifreeze/ Water Blending Pump



Model Number	Ball	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlets (F)	Material Outlet (F)	Air Max. PSI	GPM Max
<b>650715-C</b>	Acetal	Nitrile	Aluminum	1/4"	3/4"	1"	120	35 GPM

## 1-1/2" Diaphragm Pump



Model Number	Ball	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlet & Outlet (F)	Air Maximum PSI	GPM Max
<b>666150-362C</b>	Acetal	Nitrile	Aluminum	1/2"	1-1/2"	120	90 GPM

## 2" Diaphragm Pump



Model Number	Ball	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlet & Outlet (F)	Air Maximum PSI	GPM Max
<b>PD-20AAAP-GGG</b>	Nitrile	Nitrile	Aluminum	3/4"	2"	120	170 GPM

# Diaphragm Pumps



## ARO Diaphragm Drum Pump Package

**Matched Components** - ARO drum pump package components (adapters, siphon tubes, etc.) contain pre specified, matching materials of construction for complete fluid compatibility.

**Runs Dry** - ARO diaphragm pumps can run dry without any damage to the pump.

**Patented Air Valve** - ARO's patented "unbalanced" air valve design eliminates stalling, a common occurrence in competitive pumps.

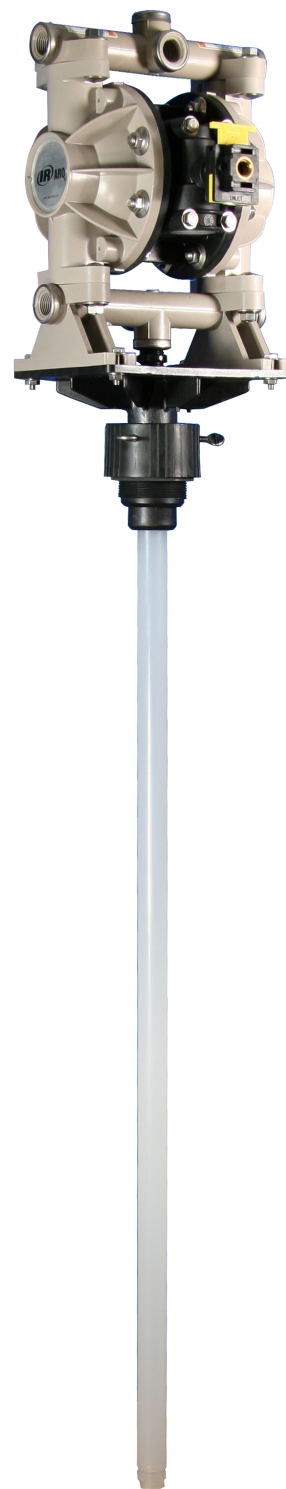
**Bolted Construction** - Pumps feature bolted construction to avoid the proven problems created by band clamp type pump fasteners.

**Lube-Free Air Motor** - All ARO 1/2" diaphragm pumps are pre-lubricated. They do not require an air lubricator, eliminating maintenance concerns. (The use of a lubricator is not recommended.)

**Simple Design** - Provides trouble-free operation and virtually maintenance-free performance.

### Specifications

Ratio . . . . . 1:1  
Drum size . . . . . 16 or 55-Gallon  
Double-acting . . . . . Yes  
Air Inlet . . . . . 1/4"(F)  
Material Outlet . . . . . 1/2"(F)  
Free Flow Rating . . . . . 13 GPM  
Air Inlet Pressure . . . . . 100 PSI Max



Model Number	Body	Seat	Ball & Diaphragm	Fluid Compatibility
DA-005PPN-N2A*	Polypropylene	Polypropylene	Nitrile	Oil, water and antifreeze

\*Package includes pump, bung adapter, air shut-off valve, siphon tube, weather seal and base. Not recommended for oil use in a "closed" system (where the pump remains pressurized when not in use) without thermal relief kit model number TIM-RELIEF-KIT.



## UL Fuel Diaphragm Pumps

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

To meet UL 79 specifications, pumps utilize pressure relief valves to limit dispensing line pressure to under 50 PSI. If line pressure between the pump and dispensing point exceeds 50 PSI due to thermal expansion, line compression, back pressure or gravity, the relief valve opens and bleeds off excess pressure. **The relief valve must be plumbed to return the bleed-off fuel to the storage container.**



## UL Fuel Diaphragm Pumps



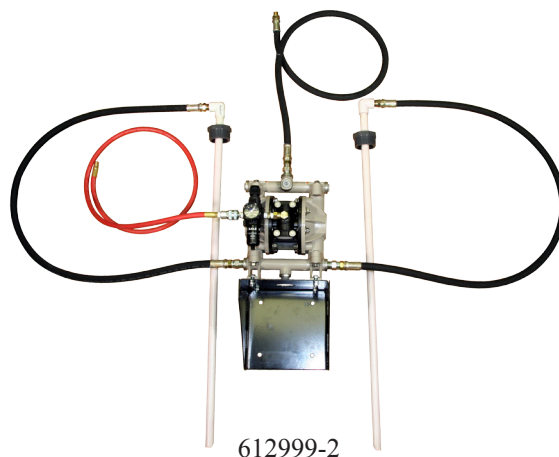
Model Number	Ball	Seat	Diaphragm & O-Ring	Body	Air Inlet (F)	Material Inlet & Outlet (F)	Maximum PSI	GPM Max
650717-C	Acetal	Kynar®	Viton®	Aluminum	1/4"	1"	50	29 GPM
650718-C	Acetal	Kynar®	Viton®	Aluminum	1/2"	1-1/2"	50	75 GPM
650719-C	Acetal	Kynar®	Viton®	Aluminum	1/2"	2"	50	105 GPM

# Diaphragm Pumps

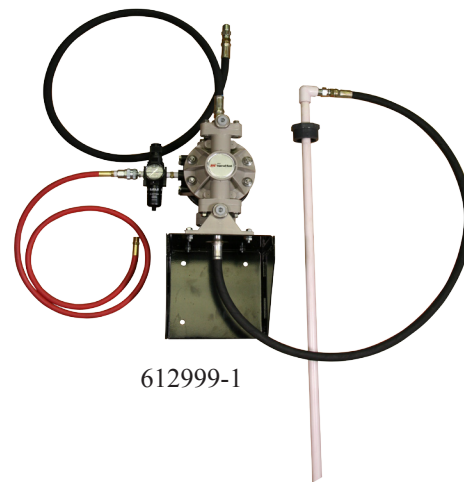
## Diaphragm Pump Packages

### 55-Gallon Antifreeze Pumping Packages

Model Number	Description
<b>612999-1*</b>	<b>1/2" Wall Mounted Pump Package for Pre-Blended Antifreeze</b> - Includes 66605J-322 pump, TIM-461 wall mount bracket, TIM-1055 siphon tube assembly, (2) TIM-4418-5 1/2" material hoses, TIM-4214-5 air hose, P-29122-624 air filter/regulator/gauge, 210 air coupler, 2608 air connector and TIM-212 1/4" air adapter.
<b>612999-2*</b>	<b>1/2" Wall Mounted 50/50 Antifreeze/Water Blending Pump Package</b> - Includes 666053-322 pump, TIM-461 wall mount bracket, (2) TIM-1055 siphon tube assemblies, (3) TIM-4418-5 1/2" material hoses, TIM-4214-5 air hose, P-29122-624 air filter/regulator/gauge, 210 air coupler, 2608 air connector and TIM-212 1/4" air adapter.
<b>612999-3</b>	<b>1" Wall Mounted 50/50 Antifreeze/Water Blending Pump Package</b> - Includes 650715-C pump, 66100 wall mount bracket, (2) 66779 siphon tube assemblies, (2) 628066-6 1" material hoses, 628067-3 material hose, P29221-610 air line filter/regulator, 100067-S gauge and 622201-3 1/4" air hose.



612999-2



612999-1

### 55-Gallon Windshield Washer Fluid Pump Package

Model Number	Description
<b>612999-1*</b>	<b>1/2" Wall Mounted Pump Package for Windshield Washer Fluid</b> - Includes 66605J-322 pump, TIM-461 wall mount bracket, TIM-1055 siphon tube assembly, (2) TIM-4418-5 1/2" material hoses, TIM-4214-5 air hose, P-29122-624 air filter/regulator/gauge, 210 air coupler, 2608 air connector and TIM-212 1/4" air adapter.

### 55-Gallon Plastic Drum

Model Number	Description
<b>TIM-I-55B</b>	<b>55-Gallon Translucent Blue Poly Drum</b> - Ideal for 50/50 antifreeze and water applications or windshield washer solvent and water applications.

\*Not recommended for oil use in a "closed" system (where the pump remains pressurized when not in use) without thermal relief kit model number TIM-RELIEF-KIT.



TIM-I-55B

## Diaphragm Pump Waste Oil Packages

Model Number	Description
<b>612999-4</b>	<b>Waste Oil Evacuation System</b> - Includes 666100-3C9C 1" diaphragm pump, TIM-461 wall mount bracket, 612999-4H 1" pump inlet hose assembly, 628067-3 1" pump outlet hose assembly, P-29122-624 air line filter/regulator/gauge, TIM-4214-3 1/4" air line hose, TIM-180 fluid coupler and TIM-250-BV air valve.
<b>612999-5</b>	<b>Waste Oil Evacuation System</b> - Includes 66605J-322 1/2" diaphragm pump, TIM-461 wall mount bracket, 612999-5H 3/4" pump inlet hose assembly, TIM-4418-5 1/2" pump outlet hose assembly, P-29122-624 air line filter/regulator/gauge, TIM-4214-3 1/4" air line hose and TIM-180 fluid coupler.



## Differential Oil Evacuation Package

Model Number	Description
<b>612999-6</b>	<b>Portable 1/2" Evacuation System</b> - Designed to speed up vehicle transaxle differential drainage. Lightweight system's left rear bracket tube doubles as a fluid drainage outlet allowing the pump to be positioned on quick lube rolling drains. Can also be used on 16 and 55-gallon drums. Package includes 1/2" diaphragm pump, tube brackets for hanging unit, 8' fluid suction line, evacuation wand, P-29122-100 filter/regulator and 29850 gauge.

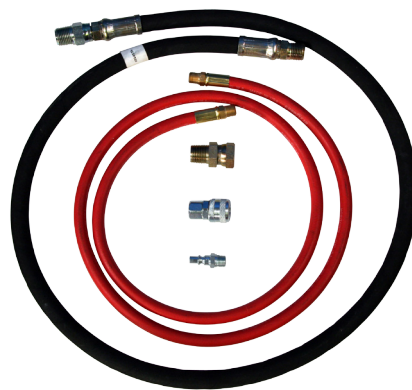




# Pump Accessories

## Thunder Pump Connecting Hose Kits

Model Number	Description
<b>TIM-4430</b>	<b>Connecting Hose Kit for Thunder Oil Pumps</b> - Includes 3' air hose and 4' material hose.
<b>TIM-4431</b>	<b>Connecting Hose Kit for Thunder Oil Pumps</b> - Includes 5' air hose, 5' material hose, union adapter, air coupler and air connector.
<b>TIM-4440</b>	<b>Connecting Hose Kit for Thunder 120-lb. Grease Pumps</b> - Includes 3' air hose, 4' material hose, union adapter, air coupler and air connector.



TIM-4431

## Pressure Relief Kits

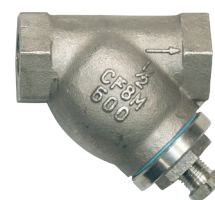
Model Number	Relief Setting	Description
<b>TIM-2000-4</b>	600 PSI	<b>Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Valve must be plumbed back to the oil supply tank. Kit includes everything required for hook-up: tee-connection for discharge side of pump, relief valve, nylon tubing, compression nuts for tubing connections and 2" PVC adapter for tank fill cap. Use on 3:1 and 5:1 ratio pumps.
<b>25-2000-4</b>	600 PSI	<b>25-Pack of TIM-2000-4 Pressure Relief Kit</b> - See above.
<b>TIM-2000-4A</b>	900 PSI	<b>Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Valve must be plumbed back to the oil supply tank. Kit includes everything required for hook-up: tee-connection for discharge side of pump, relief valve, nylon tubing, compression nuts for tubing connections and 2" PVC adapter for tank fill cap. Use on 9:1 ratio pumps.
<b>25-2000-4A</b>	900 PSI	<b>25-Pack of TIM-2000-4A Pressure Relief Kit</b> - See above.
<b>TIM-RELIEF-KIT</b>	100 PSI	<b>Pressure Relief Kit</b> - Used on 1/2" and 1" diaphragm pump applications to reduce pressure build-up due to thermal expansion. Must be plumbed back to the supply tank.



TIM-2000-4

## Fluid Y-Strainer

Model Number	Inlet/Outlet	Working Pressure	Description
<b>TIM-2000-6A</b>	1/2" (F)	1200 PSI	<b>20 Mesh Filter</b> - For keeping contaminants out of a fresh oil system.
<b>TIM-2000-10</b>	1" (F)	200 PSI	<b>20 Mesh Filter</b> - For keeping contaminants out of a waste oil system.



TIM-2000-6A

## Stub Pump Suction Tubes

Suction tubes are made from black steel pipe. The tubes in these charts are based on using no check valve. Subtract 3" from the tube length if using a 3:1 (TIM-196-C) check valve, and subtract 5" from the tube length if using a 5:1 or 9:1 low-level cutoff (TIM-166-LLC). If using a 9:1 Series 425 pump order TIM-161 pipe coupler separately to connect the suction tube to the pump.

Tank Type	For 9:1 Pump 1-1/2" (M) Pipe	For 5:1 Pump 1-1/2" (M) Pipe	For 3:1 Pump 3/4" (M) Pipe
275-gallon horizontal obround	<b>TIM-MTL-26</b>	<b>TIM-MTL-35</b>	<b>TIM-MTL75-37</b>
275-gallon vertical obround	<b>TIM-MTL-42</b>	<b>TIM-MTL-51</b>	<b>TIM-MTL75-53</b>
500-gallon horizontal round	<b>TIM-MTL-30</b>	<b>TIM-MTL-39</b>	<b>TIM-MTL75-41</b>
ALEC workbench	<b>TIM-MTL-15</b>	<b>TIM-MTL-23</b>	<b>TIM-MTL75-25</b>
Cube style (36" Internal Depth)	<b>TIM-MTL-19</b>	<b>TIM-MTL-26</b>	<b>TIM-MTL75-29</b>
Cube style (60" Internal Depth)	<b>TIM-MTL-42</b>	<b>TIM-MTL-51</b>	<b>TIM-MTL75-53</b>



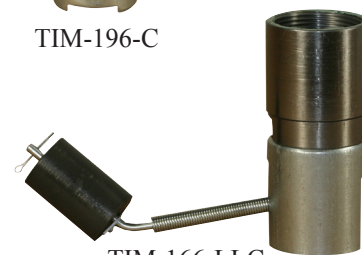
TIM-MTL-29

## Pump Inlet Check Valves

Model Number	Used On	Description
<b>TIM-196-C</b>	Thunder 3:1 pumps	<b>Inlet Check Valve</b> - Installs at the bottom of the pump suction tube to help the pump maintain prime during periods of non-use. 3/4" (F) inlet. Check valve is 2-3/4" (L) which must be taken into consideration when ordering the suction tube.
<b>25-196-C</b>	Thunder 3:1 pumps	<b>25-Pack of TIM-196-C Check Valves</b> - See above.
<b>TIM-166-LLC</b>	Thunder 5:1 and Series 425 oil pumps	<b>Low-level Cutoff and Inlet Check Valve</b> - Installs at the bottom of the pump suction tube to help the pump maintain prime during periods of non-use. Also helps protect the pump's packings by slowing down the cycle rate if the pump runs dry (no oil in tank). 1-1/2" (F) inlet. Low-level cutoff is 4-5/8" (L) which must be taken into consideration when ordering the suction tube.
<b>25-166-LLC</b>	Thunder 5:1 and Series 425 oil pumps	<b>25-Pack of TIM-166-LLC Low Level Cut-off and Inlet Check Valve</b> - See above.



TIM-196-C



TIM-166-LLC



# Pump Accessories

## Bung Adapters

Model Number	Description	Pumps Used With
<b>67145-3B</b>	<b>2"(M) Thread</b>	Thunder 3:1 ratio oil pumps
<b>67145-4B</b>	<b>2"(M) Thread</b>	Thunder 5:1 ratio oil pumps
<b>67145-2</b>	<b>2"(M) Thread</b>	Thunder grease pumps
<b>4148</b>	<b>2"(M) Thread For Use With 1-7/8" Siphon Tube</b>	Series 425 grease pumps
<b>60870</b>	<b>2"(M) Thread For Use With 2-1/8" Siphon Tube</b>	Series 200 1:1 pumps, Series 425 oil pumps, Series 600 grease pumps
<b>67088</b>	<b>Water-tight seal kit.</b> Used in conjunction with bung adapters that come with Thunder grease pumps.	Thunder grease pumps
<b>67088-3</b>	<b>Water-tight seal kit.</b> Consists of 67088 seal kit and 67145-3 bung adapter.	Thunder 3:1 ratio oil pumps
<b>67088-4</b>	<b>Water-tight seal kit.</b> Consists of 67088 seal kit and 67145-4 bung adapter.	Thunder 5:1 ratio oil pumps



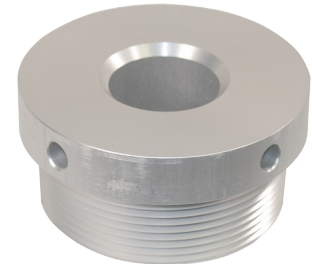
67145-3B



67088-4

## Bulk Grease Tank Adapters

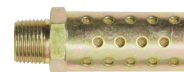
Model Number	Description
<b>67216-2</b>	<b>Thunder 3" Bulk Grease Tank Adapter</b> - Allows 3" Thunder grease pumps to function when inserted into the 3" horizontal discharge tube on bulk grease tanks. The end of the pump tube should be positioned as far into the discharge tube as possible, preferably near the back wall of the sump.
<b>67216-1</b>	<b>4-1/4" Grease Pump Tube Adapter</b> - Used in the same application as above.



67216-2

## Air Motor Mufflers

Model Number	Inlet	Size Inches x Inches	Pumps Used With
<b>61880</b>	1/2"(M)	1-1/4" x 3-5/8"	Series 200 1:1 ratio pumps
<b>91790</b>	1-1/4"(M)	3-1/2" x 11-3/16"	Series 425 and Series 600 pumps
<b>93110</b>	3/8"(M)	7/8" x 2 5/8"	1" diaphragm pumps
<b>93139</b>	3/4"(M)	3-1/8" x 4-1/4"	1-1/2" diaphragm pumps
<b>94117</b>	1-1/2"(M)	2" x 4"	2" and 3" diaphragm pumps



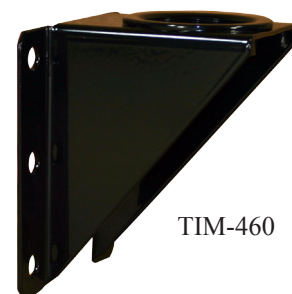
93110



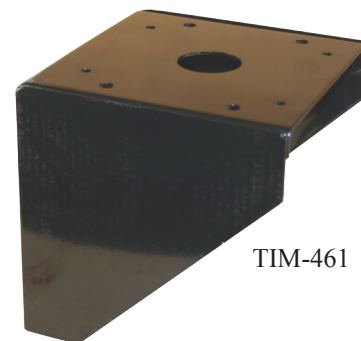
91790

## Wall Mount Brackets & Kits

Model Number	Pumps Used With	Description
<b>TIM-460</b>	All Thunder oil pumps	Wall mount bracket with 2" threaded opening.
<b>61113</b>	Series 200 pumps, all Thunder oil pumps, and Series 425 stub pumps fitted with bung adapters	Wall mount bracket with 2" threaded opening. Bracket is slotted to fit over rim of open-head drum.
<b>62133</b>	1-1/2" diaphragm pumps	Wall-mount bracket
<b>TIM-461</b>	1/2" & 1" diaphragm pumps	Wall-mount bracket
<b>TIM-460-3</b>	Thunder 3:1 stub pumps	Kit for wall mounting 3:1 Thunder stub oil pumps. Includes wall mount bracket, 3/4" x 6' suction hose, double-tap bushing and adapters. Order 3/4" downtube and check valve (TIM-196-C) separately.
<b>TIM-460-5</b>	Thunder 5:1 stub pumps	Kit for wall mounting 5:1 Thunder stub oil pumps. Includes wall mount bracket, 1" x 8' suction hose, double-tap bushing and adapters. Order 1-1/2" downtube and check valve (TIM-166-LLC) separately.



TIM-460



TIM-461

## Siphon Tubes for Wall Mounted Pumps

Model Number	Container Size	Included Accessories	Tube Material	Foot Valve	Material Outlet Size	Use With
<b>TIM-1049</b>	55-gallon drum	1" x 6' suction hose	1-1/2" PVC	Yes	1-1/2"(M)	3" or 4 1/4" stub oil pumps
<b>TIM-1052</b>	55-gallon drum	3/4" x 6' suction hose	1-1/2" PVC	Yes	3/4"(M)	2" stub oil pumps
<b>TIM-1055</b>	55-gallon drum	None	1/2" PVC	No	1/2"(F) x 90 degree	1/2" diaphragm pumps wall mounted
<b>TIM-1056</b>	55-gallon drum	None	1/2" PVC	No	1/2"(M)	1/2" diaphragm pumps direct drum mount
<b>TIM-1057</b>	275-gallon tank	None	1/2" PVC	No	1/2"(M)	1/2" diaphragm pumps direct tank mount
<b>TIM-1058</b>	55-gallon drum	None	1-1/2" PVC	Yes	1"(F)	Stub pumps & 1/2" or 1" diaphragm pumps wall mounted
<b>TIM-1059</b>	275-gallon tank	None	1-1/2" PVC	Yes	1"(F)	Stub pumps & 1/2" or 1" diaphragm pumps wall mounted



TIM-1056



TIM-1058

# Pump Accessories

## Drum Covers

Model Number	Drum Size	# of 2" Threaded Holes	Works with Tie-Down Kits	Used On
<b>TIM-9001-6</b>	35-lb.	0 Bolts to pump	No	Advantage Plus grease pumps
<b>94420</b>	35-lb.	1	No	All Thunder 2" and 3" pumps
<b>TIM-9000-6</b>	120-lb.	0 Bolts to pump	No	Advantage Plus 50:1 & 70:1 grease pumps
<b>TIM-451</b>	16-gallon/ 120-lb.	1	Yes*	All Thunder 2" and 3" pumps
<b>94421</b>	16-gallon/ 120-lb.	1	Yes*	All Thunder 2" and 3" pumps
<b>66492</b>	16-gallon/ 120-lb.	1	Yes*	Series 425 oil and grease pumps
<b>66715</b>	120-lb.	1	No	Series 600 grease pumps
<b>TIM-9003-6</b>	55-gallon/ 400-lb.	1	No	Advantage Plus 50:1 & 70:1 grease pumps
<b>94422</b>	55-gallon/ 400-lb.	1	No	All Thunder 2" and 3" pumps
<b>71060-1</b>	55-gallon/ 400-lb.	2	Yes*	All Thunder pumps, Series 425 pumps equipped with a bung adapter, and Series 600 grease pumps

\*Tie-down kits not included. Order tie-down kits separately.



94420



TIM-451



94422



TIM-9003-6

## Drum Tie-Down Kits

Tie-down kits facilitate the mounting of drums on lube trucks. Tie-down rods mount to the drum cover and are attached to the truck's floor bed to prevent the drum from moving. Kit includes (2) tie-down rods and mounting hardware.

Model Number	Drum Size	Cover Used With	Pumps Used With
<b>640164</b>	16-gallon 120-pound drum	94421 & TIM-451	All Thunder 2" and 3" pumps
<b>640091</b>	16-gallon 120-pound drum	66492	All 425 Series pumps
<b>71027-1</b>	55-gallon 400-pound drum	71060-1	All Thunder 2" and 3" pumps and all 425 Series pumps



640164

## Pump Lifts

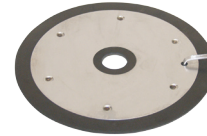
Model Number	Description	Max. Height	Suggested Drum Cover	Pumps Used With
<b>640225</b>	Air-operated lift for 16-gallon or 120-pound drum	62"	94421	All Thunder 2" and 3" pumps
<b>640067</b>	Single-acting cylinder lift for 55-gallon or 400-pound drum	92"	71060-1	All Thunder 2" and 3" pumps and all Series 425 pumps



640067

## Grease Follower Plates

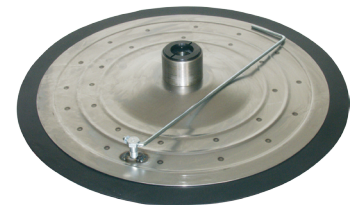
Model Number	Drum Size	Wiper Seal Material	Used On
<b>TIM-9001-8</b>	35-lb. tapered pail	Rubber	TIM-9001
<b>640095-2B</b>	35-lb. tapered pail	Rubber	Thunder 2" and 3" grease pumps
<b>TIM-9000-7</b>	120-lb.	Buna-N	Advantage Plus 50:1 & 70:1 grease pumps
<b>640165</b>	120-lb.	Buna-N	Thunder 2" and 3" grease pumps
<b>640152</b>	120-lb.	Buna-N	Series 425, 50:1 ratio grease pumps
<b>640152-1</b>	120-lb.	Buna-N	Series 600, 100:1 ratio grease pumps
<b>TIM-9003-8</b>	400-lb.	Buna-N	Advantage Plus 50:1 & 70:1 grease pumps
<b>640015-1</b>	400-lb.	Buna-N	Thunder 3" grease pumps
<b>640015-2</b>	400-lb.	Buna-N	Series 425, 50:1 ratio grease pumps
<b>640015-5</b>	400-lb.	Buna-N	Series 600, 100:1 ratio grease pumps



640095-2B



640165



640015-1



TIM-9003-8

# Pump Accessories

## Drum Dollies

Model Number	Drum Size	Dolly Type
<b>TIM-353</b>	35-lb.	Band Dolly with polypropylene wheels
<b>TIM-358</b>	120-lb.	Band Dolly with polypropylene wheels
<b>640058-2</b>	120-lb.	Deluxe Band Dolly with rubber wheels
<b>TIM-352</b>	120-lb.	Platform Dolly with polypropylene wheels
<b>TIM-357</b>	120-lb.	Deluxe Platform Dolly with creeper style wheels
<b>TIM-355-1</b>	400-lb.	Band Dolly



TIM-357



TIM-355-1



640058-2



TIM-358



TIM-353

## Drum Trucks and Carts

Model Number	Description
<b>TIM-400-1</b>	<b>2-Wheel Drum Truck</b> - Unit has two securing positions to accommodate either 35-lb. or 120-lb. drums. Equipped with (2) 6-1/2" diameter wheels and built-in control handle holder.
<b>TIM-401-1</b>	<b>Heavy-Duty Industrial Drum Truck</b> - For use with either 16-gallon, 55-gallon, 120-lb. or 400-lb. drums. Two front tires are pneumatic for maneuverability on even the most difficult surfaces. Rear wheel includes wheel lock. Comes complete with drum fastening system, hose hanger and control handle storage slot.
<b>640149</b>	<b>3-Wheel Drum Cart</b> - Includes hinged handle, swivel type front wheel and (2) 6" diameter rubber rear wheels. Accommodates either 16-gallon or 120-lb. drum.



TIM-400-1



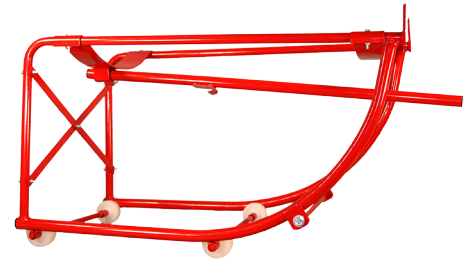
640149



TIM-401-1

## Drum Cradle

Model Number	Description
<b>TIM-351-8</b>	<b>Drum Cradle with Wheels</b> - This easy to use drum cradle is ideal for storing and moving 55-gallon drums. Includes easy to use lever bar.



TIM-351-8

## Drum Wrenches

Model Number	Description
<b>TIM-351-1</b>	<b>Aluminum Drum Wrench</b> - Non sparking. Opens 3/4" slotted bung and 2" cross bar bung.
<b>TIM-351-2</b>	<b>Universal Spoke Steel Drum Wrench</b> - Powder coated. Can open 3/4" to 2" openings using one of the four different ends.



TIM-351-1



TIM-351-2

## Drum Spigots

Model Number	Description
<b>TIM-32-2</b>	<b>Polyethylene Drum Spigot</b> - 2" NPT (M) drum spigot opening empties 55-gallon drum in under three minutes.
<b>TIM-32-34A</b>	<b>Metal Drum Spigot</b> - Self-closing drum spigot fits 3/4" NPT opening. Spigot allows for the use of a lock.
<b>TIM-32-34P</b>	<b>Box of 10 Polyethylene Drum Spigots</b> - 3/4" NPT (M)



TIM-32-2



TIM-32-34A



TIM-32-34P



# Hose Reels

## Advantage Plus Series



**Slide-In Mounting Bracket** - Optional slide-in bracket simplifies reel mounting. Easily allows one person to hang the reel in an overhead application.

**More Choices** - All reels are available in 65' versions.

**Latch Spring** - Heavy duty latch spring is designed for years of trouble-free service, and can be replaced without removing or disassembling the reel.

**Enclosed Spring** - Cartridge style spring motor is packed with grease and fully enclosed for extra safety. Springs are factory balanced for each size reel.

**Mounting Flexibility** - Multi-position guide arm is easily adjusted for ceiling, floor, wall, tank, or truck mounting.

**Strength Beads** - Reels are constructed with strength beads for added rigidity.

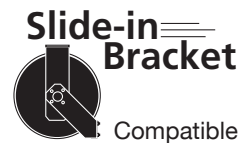
**Rolled Edges** - Hubs are constructed of heavy gauge steel with rolled edges for extra strength and maximum protection.

**Self-Lubricating** - 1" double supported steel axle with 1" self-lubricating precision bearings.

**Rigid Construction** - Base plate and support post are built from heavy 1/4" plate steel to reduce flexing and fatigue.

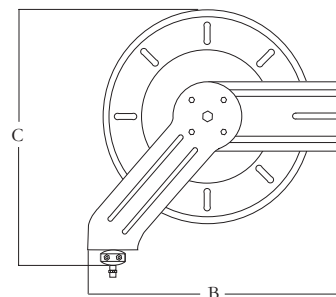
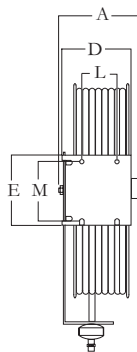
**Hi-Flow Swivel** - Load-free high-flow swivel allows maximum product delivery, and can be replaced without removing or disassembling the reel.

**Durable Finish** - All Advantage Plus Series reels are powder-coated black for increased durability.



## Size Index Chart

A	B	C	D	E	Mount L-M
8 7/16"	21 1/2"	20 5/8"	5 3/4"	9"	3 1/2" x 7 1/2"



14' maximum mounting height

## Air & Water Reels - Low Pressure



Model Number	Used For	Hose Size	Max PSI	Delivery Hose	Hose Stop	Inlet / Outlet Size	Weight in Pounds
<b>TIM-3616-50</b>	Air, Water, WWS	3/8" x 50'	300	TIM-4216-50	TIM-131-3	3/8" (F)	49
<b>TIM-3616-65*</b>	Air, Water, WWS	3/8" x 65'	300	TIM-4216-65	TIM-131-3	3/8" (F)	53
<b>TIM-3618-50</b>	Air, Water, WWS	1/2" x 50'	300	TIM-4208-50	TIM-131-4	1/2" (F)	60
<b>TIM-3618-65*</b>	Air, Water, WWS	1/2" x 65'	300	TIM-4208-65	TIM-131-4	1/2" (F)	64



TIM-3616-50

## Oil Reels - Medium Pressure



Model Number	Used For	Hose Size	Max PSI	Delivery Hose	Hose Stop	Inlet / Outlet Size	Weight in Pounds
<b>TIM-3628-25</b>	Oil, ATF, A/F	1/2" x 25'	2000	TIM-4418-25	TIM-131-4	1/2" (F)	47
<b>TIM-3628-30</b>	Oil, ATF, A/F	1/2" x 30'	2000	TIM-4418-30	TIM-131-4	1/2" (F)	49
<b>TIM-3628-50</b>	Oil, ATF, A/F	1/2" x 50'	2000	TIM-4418-50	TIM-131-4	1/2" (F)	55
<b>TIM-3628-65*</b>	Oil, ATF, A/F	1/2" x 65'	2000	TIM-4418-65	TIM-131-4	1/2" (F)	62



TIM-3628-50

## Grease Reels - High Pressure



Model Number	Used For	Hose Size	Max PSI	Delivery Hose	Hose Stop	Inlet / Outlet Size	Weight in Pounds
<b>TIM-3636-25</b>	Grease	3/8" x 25'	4000	TIM-4506-25	TIM-131-3	3/8" (F)	49
<b>TIM-3636-30</b>	Grease	3/8" x 30'	4000	TIM-4506-30	TIM-131-3	3/8" (F)	51
<b>TIM-3636-50</b>	Grease	3/8" x 50'	4000	TIM-4506-50	TIM-131-3	3/8" (F)	60
<b>TIM-3636-65*</b>	Grease	3/8" x 65'	4000	TIM-4506-65	TIM-131-3	3/8" (F)	66

\*These reels are equipped with a special factory-balanced spring designed specifically for 65' hose. Order connecting hose separately. See page 53.



TIM-3636-50

## Optional Slide-In Mounting Bracket



Model Number	Description
<b>TIM-3600-50</b>	Slide-In mounting bracket simplifies reel mounting by allowing for one man installations. Easily mounts to Uni-Strut® using Uni-Strut® hardware (not included). Can also be mounted by drilling and fastening to an I-Beam or H-Beam (fastening hardware not included).



TIM-3600-50

# Hose Reels

## Challenger Series

**Latch Spring** - Heavy duty latch spring is designed for years of trouble-free service.

**Enclosed Spring** - Cartridge style spring motor is packed with grease and fully enclosed for extra safety. Springs are factory balanced for each size reel.

**Mounting Flexibility** - Multi-position guide arm is easily adjusted for ceiling, floor, wall, tank, or truck mounting.

**Strength Beads** - Reels are constructed with strength beads for added rigidity.

**Rolled Edges** - Hubs are constructed of heavy gauge steel with rolled edges for extra strength and maximum protection.

**Self-Lubricating** - 1" double supported steel axle with 1" self-lubricating precision bearings.

**Rigid Construction** - Base plate and support post are built from heavy gauge steel to reduce flexing and fatigue.

**Durable Finish** - All Challenger Series reels are powder-coated black for increased durability.



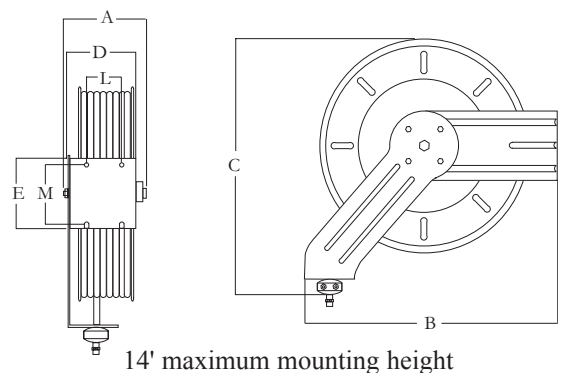
## Oil, Air & Water Reels

Model Number	Used For	Hose Size	Max PSI	Delivery Hose	Hose Stop	Inlet / Outlet Size	Weight in Pounds
<b>TIM-3716-35</b>	Air/Water	3/8" x 35'	300	TIM-3700-35	TIM-131-3	3/8" (F)	30
<b>TIM-3816-50</b>	Air/Water	3/8" x 50'	300	TIM-4216-50	TIM-131-3	3/8" (F)	35
<b>TIM-3726-25</b>	Oil, ATF, Antifreeze	3/8" x 25'	2000	TIM-4406-25	TIM-131-3	3/8" (F) / 1/2" (M)	33

Order connecting hose separately. See page 53.

## Size Index Chart

Model Number	A	B	C	D	E	Mount L-M
<b>TIM-3716-35</b>	6-3/16"	15-9/16"	15-5/16"	5-1/8"	6-7/16"	3-3/16" x 5-1/4"
<b>TIM-3816-50</b>	8"	16-15/16"	19-1/8"	5-12/16"	5-15/16"	4" x 4-15/16"
<b>TIM-3726-25</b>	6-3/16"	15-9/16"	15-5/16"	5-1/8"	6-7/16"	3-3/16" x 5-1/4"



## Challenger Series

**UL Listed** - All Challenger Series electric reels are UL and CUL listed.

**Slim-Compact Design** - Reel cabinets are 11" x 4" x 11".

**Durable** - All reels are enclosed in a durable polypropylene case.

**Mounting Flexibility** - Mounting bracket allows for easy wall or ceiling mounting.

**Swiveling Design** - These reels are designed to swivel 180° around the built-in mounting bracket.

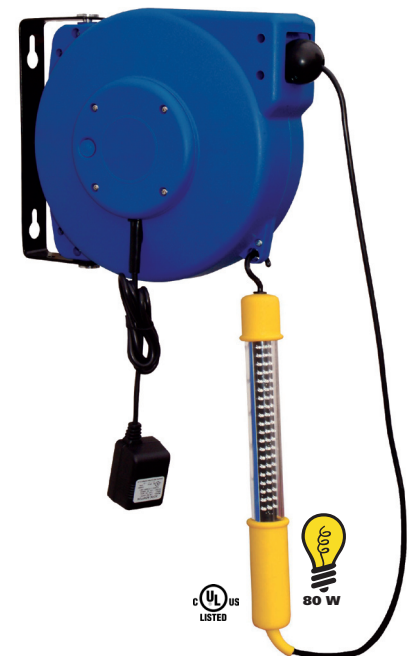
**Cord Stop** - All Challenger Series electric reels include an adjustable cord stop.

**Cord Guide** - Dual roller design prevents the electric cord from snagging.

**Temperature Resistance** - Reels are rated for temperatures up to 190° F.



TIM-4001-40



TIM-4000-50

## Light Cord Reel

The TIM-4000-50 50' light cord reel uses LED technology to provide illumination for up to 100,000 hours at a brightness equivalent to an 80 watt light bulb. The LEDs are encased in a water proof/shatter proof clear plastic housing for increased durability.

Model Number	Gauge	Cord Length	Volt	LEDs	Brightness Equivalent	Type
<b>TIM-4000-50</b>	18	50'	120	6035	80W bulb	SJTW

## Electric Cord Reel

The TIM-4001-40 holds a 40' UL listed electric cord with triple outlet.

Model Number	Gauge	Cord Length	Volt	Amps	Outlet Type	Type
<b>TIM-4001-40</b>	12	40'	120	15	Triple Outlet	SJT



# Hose Reels

## Industrial Series Heavy-Duty

**Enclosed Spring** - Cartridge style spring motor is packed with grease and fully enclosed for extra safety. Springs are factory balanced for each size reel.

**Mounting Flexibility** - Multi-position guide arm is easily adjusted for ceiling, floor, wall, tank or truck mounting.

**Strength Beads** - Reels are constructed with strength beads for added rigidity.

**Rolled-Edge** - Hubs are constructed of heavy gauge steel with rolled edges for extra strength and maximum protection.

**Latch Spring** - Heavy-duty latch spring is designed for years of trouble-free service, and can be replaced without removing or disassembling the reel.

**Self-Lubricating** - 1" double supported steel axle with 1" self lubricating precision bearings.

**Rigid Construction** - Base plate and support post are built from heavy 1/4" plate steel to reduce flexing and fatigue.

**Latch-Out Prevention** - Hose reels can be installed to prevent "latch-out" or locked reel syndrome.

**Hi-Flow Swivel** - Load-free hi-flow swivel allows maximum product delivery, and can be replaced without removing or disassembling the reel. Swivel O-ring seals are supported by Teflon® backup rings for added durability.

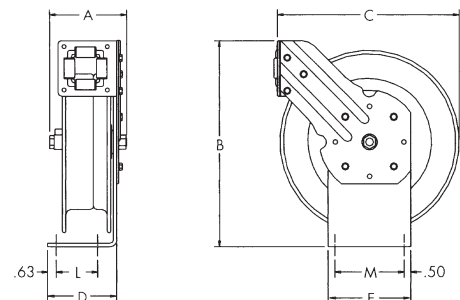
**Cabinet Enclosure** - Reels can be mounted using a cabinet enclosure system (page 52).

**Durable Finish** - All Industrial Series reels are powder-coated grey for increased durability.



## Size Index Chart

Reel Dimensions In Inches						
Size Index	A	B	C	D	E	Mount L-M
1	6.00	14.50	13.75	5.00	6.00	3x5
2	6.25	14.50	13.75	5.00	6.00	3x5
3	8.75	21.00	19.62	6.00	6.00	4x5
4	9.25	21.00	19.62	6.00	6.00	4x5



## Air & Water Reels-Low Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3104-35D</b>	1/4" X 35'	300	TIM-4204-35SG	TIM-131-A	1/4"(F)	1/4"(M)	36	1
<b>TIM-3106-25D</b>	3/8" X 25'	300	TIM-4216-25SG	TIM-131-3	3/8"(F)	3/8"(M)	35	2
<b>TIM-3106-50D</b>	3/8" X 50'	300	TIM-4216-50SG	TIM-131-3	3/8"(F)	3/8"(M)	60	3
<b>TIM-3108-50D</b>	1/2" X 50'	300	TIM-4208-50	TIM-131-4	1/2"(F)	1/2"(M)	66	4

Order connecting hose separately. See page 53.

## Oil, ATF & Antifreeze Reels-Medium Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3208-25D1</b>	1/2" x 25'	2,500	TIM-4418-25	TIM-131-4	1/2"(F)	1/2"(M)	62	4
<b>TIM-3208-30D1</b>	1/2" x 30'	2,500	TIM-4418-30	TIM-131-4	1/2"(F)	1/2"(M)	63	4
<b>TIM-3208-50D1</b>	1/2" x 50'	2,500	TIM-4418-50	TIM-131-4	1/2"(F)	1/2"(M)	69	4

Order connecting hose separately. See page 53.

## Grease Reels-High Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3306-25D1</b>	3/8" X 25'	4,000	TIM-4506-25	TIM-131-3	3/8"(F)	3/8"(M)	64	4
<b>TIM-3306-50D1</b>	3/8" X 50'	4,000	TIM-4506-50	TIM-131-3	3/8"(F)	3/8"(M)	71	4

Order connecting hose separately. See page 53.

## Open Reel Mounting Brackets

Model Number	Description
<b>TIM-3299-1</b>	One reel I-beam bracket for 8" flange or smaller.
<b>TIM-3299-2</b>	Two reel I-beam bracket for 8" flange or smaller.



TIM-3299-1



# Hose Reels

## Platinum Series Premium Double-Arm

**Double-Arm Construction** - Reel is supported on both sides by pedestal style base and arm guides.

**Enclosed Spring** - Cartridge style spring motor is packed with grease and fully enclosed for extra safety. Springs are factory balanced for each size reel.

**Mounting Flexibility** - Multi-position guide arm is easily adjusted for ceiling, floor, wall, tank or truck mounting.

**Triple Support** - Reel axle is independently supported in three separate places and has self-lubricating bearings.

**Strength Beads** - Reels are constructed with strength beads for added rigidity.

**Rolled-Edge** - Hubs are constructed of heavy gauge steel with rolled edges for extra strength and maximum protection.

**Rigid Construction** - Base plate and support post are built from heavy 1/4" plate steel to reduce flexing and fatigue.

**Latch-Out Prevention** - Hose reels can be installed to prevent “latch-out” or locked reel syndrome.

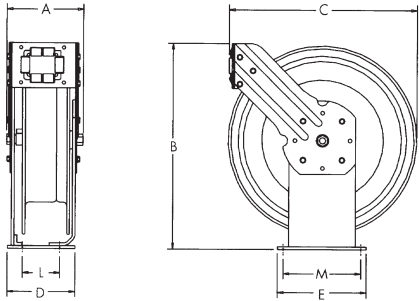
**Hi-Flow Swivel** - Load-free hi-flow swivel allows maximum product delivery. Swivel O-ring seals are supported by Teflon® backup rings for added durability.

**Durable Finish** - All Platinum Series reels are powder-coated grey for increased durability.



## Size Index Chart

Reel Dimensions In Inches						
Size Index	A	B	C	D	E	Mount L-M
1	8.75	21.19	19.63	8.00	9.00	7X8
2	9.25	21.19	19.63	8.00	9.00	7X8
3	9.25	25.50	23.00	8.00	9.00	7X8
4	9.75	21.19	19.63	8.00	9.00	7X8
5	9.75	25.50	23.00	8.00	9.00	7X8



## Diesel Fuel/Gasoline Reel - Low Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3412-50P</b>	3/4" X 50'	300	TIM-4612-50	TIM-430	3/4"(F)	3/4"(M)	91	5

Order connecting hose separately. See page 53.

## Air & Water Reels-Low Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3106-50P</b>	3/8" X 50'	300	TIM-4216-50	TIM-131-3	3/8"(F)	3/8"(M)	61	1
<b>TIM-3106-75P</b>	3/8" X 75'	300	TIM-4216-75	TIM-131-3	3/8"(F)	3/8"(M)	82	3
<b>TIM-3106-100P</b>	3/8" X 100'	300	TIM-4216-100	TIM-131-3	3/8"(F)	3/8"(M)	85	3
<b>TIM-3108-50P</b>	1/2" X 50'	300	TIM-4208-50	TIM-131-4	1/2"(F)	1/2"(M)	63	2
<b>TIM-3108-75P</b>	1/2" X 75'	300	TIM-4208-75	TIM-131-4	1/2"(F)	1/2"(M)	82	3
<b>TIM-3108-100P</b>	1/2" X 100'	300	TIM-4208-100	TIM-131-4	1/2"(F)	1/2"(M)	95	3
<b>TIM-3112-50P</b>	3/4" X 50'	250	TIM-4212-50	TIM-430	3/4"(F)	3/4"(M)	83	5

Order connecting hose separately. See page 53.

## Oil, ATF & Antifreeze Reels-Medium Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3208-50P</b>	1/2" x 50'	2,500	TIM-4418-50	TIM-131-4	1/2"(F)	1/2"(M)	77	2
<b>TIM-3208-75P</b>	1/2" x 75'	2,500	TIM-4418-75	TIM-131-4	1/2"(F)	1/2"(M)	100	3
<b>TIM-3208-100P</b>	1/2" x 100'	2,500	TIM-4418-100	TIM-131-4	1/2"(F)	1/2"(M)	106	3
<b>TIM-3212-50P</b>	3/4" x 50'	1,500	TIM-4412-50	TIM-430	3/4"(F)	3/4"(M)	94	5

Order connecting hose separately. See page 53.

## Grease Reels-High Pressure

Model Number	Hose Size	Maximum PSI	Delivery Hose	Hose Stop	Inlet Size	Delivery Hose Thread Size	Weight Pounds	Size Index
<b>TIM-3306-50P</b>	3/8" X 50'	4,000	TIM-4506-50	TIM-131-3	3/8"(F)	3/8"(M)	78	4
<b>TIM-3306-75P</b>	3/8" X 75'	4,000	TIM-4506-75	TIM-131-3	3/8"(F)	3/8"(M)	98	5

Order connecting hose separately. See page 53.

# Hose Reels

## Industrial Series Large Capacity

**Rigid Construction** - Reel is supported on both sides by a reinforced steel frame for maximum durability.

**Enclosed Spring** - Cartridge style spring motor is packed with grease and fully enclosed for extra safety. Springs are factory balanced for each size reel.

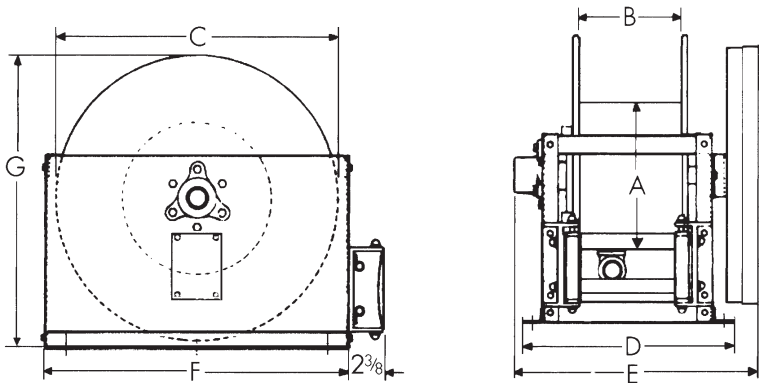
**Rolled-Edge** - Hubs are constructed of heavy gauge steel with rolled edges for extra strength and maximum protection.

**Self-Lubricating** - Flange bearings require no lubrication.

**Hi-Flow Swivel** - Externally mounted, load-free, hi-flow swivel allows maximum product delivery.

**Deluxe Roller Guides** - Stainless steel rollers on hose guide are non-corrosive and help reduce hose wear in the harshest environments.

**Durable Finish** - All Industrial Series reels are powder-coated grey for increased durability.



## Size Index Chart

Reel Dimensions In Inches							
Size Index	A	B	C	D	E	F	G
11	10.50	7.50	20.00	15.375	19.00	22.50	20.50
12	10.50	7.50	24.00	15.375	21.00	26.00	24.50

## Fuel & Oil Reels

Model Number	Used For	Hose Capacity	Maximum PSI	Inlet Size	Weight Pounds	Size Index
<b>TIM-3412-50L*</b>	Gasoline	3/4" x 50'	300	3/4"(F)	110	11
<b>TIM-3416-50L*</b>	Diesel Fuel	1" x 50'	300	1"(F)	110	12
<b>TIM-3416-50MP*</b>	Oil, Hydraulic, ATF	1" x 50'	1,000	1"(F)	115	12

\*Order connecting hose, delivery hose and hose stop separately below.

## Gas & Fuel Connecting Hoses for Pumps & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Used For
<b>TIM-4612-5</b>	3/4"	3/4"(M) x 3/4"(M)	300	High Capacity Industrial Reels in gasoline applications and ARO 1" diaphragm pumps. 5' long.
<b>TIM-4616-5</b>	1"	1"(M) x 1"(M)	300	High Capacity Industrial Reels in diesel fuel applications and ARO 1" diaphragm pumps. 5' long.

## Gas & Fuel Delivery Hoses for Consoles & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Used For
<b>TIM-4612-50</b>	3/4"	3/4"(M) x 3/4"(M)	300	High Capacity Industrial Reels in gasoline applications. 50' long.
<b>TIM-4616-50</b>	1"	1"(M) x 1"(M)	300	High Capacity Industrial Reels in diesel fuel applications. 50' long.

## 3/4" & 1" Hose Stops

Model Number	Hose ID	Style
<b>TIM-430</b>	3/4"	Donut
<b>TIM-20214</b>	1"	Donut



TIM-430

# Reel Enclosures

## Cabinet Enclosures for Advantage Plus Reels

**Construction** - Cabinet enclosures and end panels are constructed of 14-gauge steel.

**Durable Finish** - All steel parts are powder-coated with a white textured finish.

**Access Panels** - Removable panels for easy access to the reels.

**Mounting Channel** - Included 1/4" powder-coated mounting plate attaches to 4"- 7-1/2" flange on "I" or "H" beam.

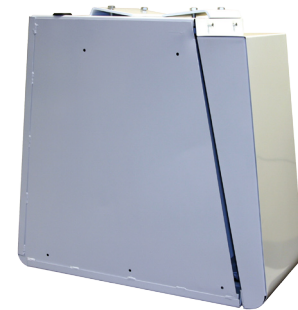
**Roller Guides** - Each reel cabinet includes a four-roller non-sag hose guide system that reduces hose wear.

**Connecting Hose Hole** - Top panel includes an access hole for easy connection to the fluid or air line.



## Cabinet Enclosures & Accessories

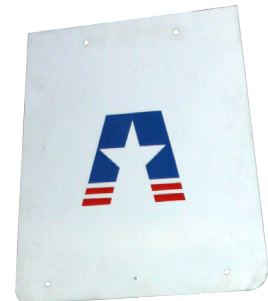
Model Number	Description
<b>TIM-3600-CAB</b>	<b>Single Cabinet Enclosure</b> - For Advantage Plus Series Reels only (page 43). Top, bottom, and back panels are constructed of 14-gauge steel and are painted with a textured white powder-coated finish. Each cabinet includes mounting bracket, non-sag roller outlets and reel access panel. Once the cabinet is mounted the reel slides easily into place. Order one cabinet per reel. (Must remove hose-guide arm from reel before installing.)
<b>TIM-3600-PAN</b>	<b>End-Panel Kit</b> - Includes two end panels. Design allows for end user to customize the panels with their own logo/decal. Order one kit for each bank of reels.



TIM-3600-CAB

## Required Connecting Hoses for Cabinet Enclosures

Model Number	Product	Hose ID	Thread Sizes	Working PSI	Length In Feet
<b>TIM-4216-2.5C</b>	Air	3/8"	3/8"(M) x 3/8"-90° swivel (M)	300	2.5
<b>TIM-4218-2.5C</b>	Air	1/2"	1/2"(M) x 1/2"-90° swivel (M)	300	2.5
<b>TIM-4418-2.5C</b>	Oil	1/2"	1/2"(M) x 1/2"-90° swivel (M)	2,500	2.5
<b>TIM-4516-2.5C</b>	Grease	3/8"	3/8"(M) x 3/8"-90° swivel (M)	4,000	2.5



TIM-3600-PAN  
(decal not included)

## Hose Reel Connecting Hoses

Model Number	Product	Hose ID	Thread Sizes	Maximum PSI	Length In Feet	For Use On
<b>TIM-4212-2N</b>	Air	3/4"	3/4"(M) x 3/4"-90° swivel (M)	250	2	3/4" Industrial Series Air Reels
<b>TIM-4216-2</b>	Air	3/8"	3/8"(M) x 3/8"(M)	300	2	Advantage Plus Series Air Reels, Challenger Series Air Reels, 3/8" Industrial Series & EZ-Coil™ Series Air Reels
<b>TIM-4216-2N</b>	Air	3/8"	1/2"(M) x 3/8"-90° swivel (M)	300	2	Advantage Plus Series Air Reels, Challenger Series Air Reels, 3/8" Industrial Series & EZ-Coil™ Series Air Reels
<b>TIM-4218-2N</b>	Air	1/2"	1/2"(M) x 1/2"-90° swivel (M)	300	2	1/2" Advantage Plus Series Air Reels, 1/2" Industrial Series & EZ-Coil™ Series Air Reels
<b>TIM-4406-2N</b>	Oil	3/8"	1/2"(M) x 3/8"-90° swivel (M)	2,500	2	Challenger Series Oil Reel
<b>TIM-4418-2N</b>	Oil	1/2"	1/2"(M) x 1/2"-90° swivel (M)	2,500	2	Advantage Plus Series, Industrial Series, EZ-Coil™ Series & Industrial Series Double-Arm Oil Reels
<b>TIM-4412-3</b>	Oil	3/4"	3/4"(M) x 3/4"(M)	1,250	3	Industrial Series Large Capacity Reels-fresh oil or evac
<b>TIM-4412-5</b>	Oil	3/4"	3/4"(M) x 3/4"(M)	1,250	5	Industrial Series Large Capacity Reels-fresh oil or evac
<b>TIM-4416-3</b>	Oil	1"	1"(M) x 1"(M)	1,000	3	Industrial Series Large Capacity Reels-fresh oil or evac
<b>TIM-4416-5</b>	Oil	1"	1"(M) x 1"(M)	1,000	5	Industrial Series Large Capacity Reels-fresh oil or evac
<b>TIM-4516-2N</b>	Grease	3/8"	3/8"(M) x 3/8"-90° swivel (M)	4,000	2	3/8" Industrial Series, EZ-Coil™ Series and Advantage Plus Series Grease Reels
<b>TIM-4612-5</b>	Gasoline	3/4"	3/4"(M) x 3/4"(M)	300	5	Industrial Series Large Capacity Reels
<b>TIM-4616-5</b>	Diesel	1"	1"(M) x 1"(M)	300	5	Industrial Series Large Capacity Reels

## Hose Stops

Model Number	Hose ID	Reel	Style
<b>TIM-131-A</b>	1/4"	All 1/4" ID Hose Reels	Donut
<b>TIM-254-D</b>	1/2"	Quick Lube Consoles	Donut
<b>TIM-131-3</b>	3/8"	Advantage Plus, Industrial and Challenger Series Reels	Donut
<b>TIM-131-4</b>	1/2"	Advantage Plus and Industrial Series Reels	Donut
<b>TIM-430</b>	3/4"	Industrial Series Large Capacity Reels	Donut
<b>TIM-20214</b>	1"	Industrial Series Large Capacity Reels	Donut



TIM-20214



TIM-131-4



# Oil Control Handles

## Pro Series Mechanical Control Handles

**Exclusive Design** - This meter is built exclusively for American Lubrication Equipment Corporation incorporating numerous design ideas provided by their design team.

**Field Repairable** - This design enables the user to replace the circuit board while the meter is installed under pressure.

**Superior Design** - Fluid is completely separated from the electronic head. The entire electronics head/puck is available as a replacement part.

**Programmable** - All Pro Series digital meters are programmable to pints, quarts, liters and gallons.

**Six-Bolt Construction** - Increases durability and working pressure.

**Batteries** - New AAA battery design lasts up to 3X longer.

**Shock-Resistant** - Rugged shock-resistant design stands up to the harshest environments. Meter covers have a molded-in soft rubber shock-guard for added protection.

**Modular Assembly** - Swivel, control valve, meter and tip assembly are separate units which simplifies repair.

**More Choices** - Pro Series mechanical control handles come in a wide variety of configurations. Two handle styles and six different tip assemblies allow you to choose the meter that best fits your application.

**Filter** - All Pro Series mechanical control handles have built-in filters for added protection.

**Trigger Guard & Lock** - All “TG” style control handles have a built-in trigger guard which helps prevent accidental dispensing as well as a built-in trigger lock for hands-free dispensing.

**3-Year Limited Warranty** - All Pro Series mechanical control handles come with a 3-year limited warranty.



### Specifications

Meter Mechanism . . . . . Oval gear  
Measurement . . . . . Pts,Qts,Lts,Gals  
Inlet/Outlet . . . . . 1/2" NPT (F)  
Flow Range (TIM-615) . . . . . 1-26 Qts./Min  
Operating Temperature . . . . . 23 to 140 F  
Storage Temperature . . . . . -5 to 158 F  
Operating Pressure . . . . . 1,000 PSI  
Weight (TIM-600-RM) . . . . . 2.8 Pounds  
Accuracy . . . . .  $\pm .5\%$   
Repeatability . . . . .  $\pm .3\%$

### Fluid Compatibility

Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

## Pro Series "TG" Style Control Handles

Model Number	Metered Units	Totalizer Units	Tip Assembly	Tip Assembly Description	Tip Diameter	Working Flow
<b>TIM-600-FA*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-747	Flex Automatic	1/2"	2.5 GPM
<b>TIM-600-FM</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-743	Flex Manual	5/8"	2.5 GPM
<b>TIM-600-FMHF</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-743-1	Flex Manual Hi-flow	15/16"	4.0 GPM
<b>TIM-600-RA*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-746	Rigid Automatic	1/2"	2.5 GPM
<b>TIM-600-RM*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-753	Rigid Manual	1/2"	2.5 GPM
<b>TIM-600-RMGO</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-742	90° Rigid Manual	1/2"	2.5 GPM
<b>TIM-600-RMHF*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-752	Rigid Manual Hi-flow	15/16"	4.0 GPM

\*This meter incorporates a new tip assembly design. The compression nuts have been sealed with Loctite® 680 Retaining Compound at the factory during the assembly process. This ensures that the tip assemblies will not come loose during normal use.



TIM-600-RM

## Pro Series Standard Control Handles

Model Number	Metered Units	Totalizer Units	Tip Assembly	Tip Assembly Description	Tip Diameter	Working Flow
<b>TIM-601-FA*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-747	Flex Automatic	1/2"	2.5 GPM
<b>TIM-601-FM</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-743	Flex Manual	5/8"	2.5 GPM
<b>TIM-601-FMHF</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-743-1	Flex Manual Hi-flow	15/16"	4.0 GPM
<b>TIM-601-RA*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-746	Rigid Automatic	1/2"	2.5 GPM
<b>TIM-601-RM*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-753	Rigid Manual	1/2"	2.5 GPM
<b>TIM-601-RMGO</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-742	90° Rigid Manual	1/2"	2.5 GPM
<b>TIM-601-RMHF*</b>	Pts/Qts/Lts/Gals	Lts/Gals	TIM-752	Rigid Manual Hi-flow	15/16"	4.0 GPM

\*This meter incorporates a new tip assembly design. The compression nuts have been sealed with Loctite® 680 Retaining Compound at the factory during the assembly process. This ensures that the tip assemblies will not come loose during normal use.



TIM-601-RM



TIM-743

TIM-753

TIM-747

TIM-746

TIM-742

TIM-752

TIM-743-1

# Oil Control Handles

## Pro Series Mechanical Control Handles

**Superior Design** - Enables the use of manual non-drip tips.

**Durable** - No exposed pointers to break or turn backwards.

**Six-Bolt Construction** - Increases durability and working pressure.

**Modular Assembly** - Swivel, control handle, meter and tip assembly are separate units which simplifies repair.

**Self-Powered** - Eliminates the headaches associated with dead batteries.

**More Choices** - Pro Series mechanical control handles come in a wide variety of configurations. Two handle styles and six different tip assemblies allow you to choose the meter that best fits your application.

**Shock-Resistant** - Rugged shock-resistant design stands up to the harshest environments. Meter bodies are equipped with a soft rubber shock-guard for added protection.

**Filter** - All Pro Series mechanical control handles have built-in filters for added protection.

**Trigger Guard** - All “TG” style control handles have a built-in trigger guard which helps prevent accidental dispensing.

**Trigger Lock** - All “TG” style control handles have a built-in trigger lock, allowing hands-free operation.

**3-Year Limited Warranty** - All Pro Series mechanical control handles come with a 3-year limited warranty.



### Specifications

Meter Mechanism . . . . . Oval gear/mechanical  
Measurement . . . . . Quarts  
Inlet/Outlet . . . . . 1/2" NPT (F)  
Flow Range (TIM-616) . . . . . .25 - 8 GPM  
Operating Temperature . . . . . -4 to 176 F  
Storage Temperature . . . . . -4 to 176 F  
Operating Pressure . . . . . 1,000 PSI  
Weight (TIM-650-FM) . . . . . 3.45 Pounds  
Accuracy . . . . .  $\pm 1\%$   
Repeatability . . . . .  $\pm .2\%$

### Fluid Compatibility

Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

## Pro Series "TG" Style Control Handles

Model Number	Metered Units	Totalizer Units	Tip Assembly	Tip Assembly Description	Tip Diameter	Working Flow
<b>TIM-650-FA*</b>	Quarts	Quarts	TIM-747	Flex Automatic	1/2"	2.5 GPM
<b>TIM-650-FM</b>	Quarts	Quarts	TIM-743	Flex Manual	5/8"	2.5 GPM
<b>TIM-650-FMHF</b>	Quarts	Quarts	TIM-743-1	Flex Manual Hi-flow	15/16"	4.0 GPM
<b>TIM-650-RA*</b>	Quarts	Quarts	TIM-746	Rigid Automatic	1/2"	2.5 GPM
<b>TIM-650-RM*</b>	Quarts	Quarts	TIM-753	Rigid Manual	1/2"	2.5 GPM
<b>TIM-650-RMHF*</b>	Quarts	Quarts	TIM-752	Rigid Manual Hi-flow	15/16"	4.0 GPM

\*This meter incorporates a new tip assembly design. The compression nuts have been sealed with Loctite® 680 Retaining Compound at the factory during the assembly process. This ensures that the tip assemblies will not come loose during normal use.



TIM-650-RM

## Pro Series Standard Control Handles

Model Number	Metered Units	Totalizer Units	Tip Assembly	Tip Assembly Description	Tip Diameter	Working Flow
<b>TIM-651-FA*</b>	Quarts	Quarts	TIM-747	Flex Automatic	1/2"	2.5 GPM
<b>TIM-651-FM</b>	Quarts	Quarts	TIM-743	Flex Manual	5/8"	2.5 GPM
<b>TIM-651-FMHF</b>	Quarts	Quarts	TIM-743-1	Flex Manual Hi-flow	15/16"	4.0 GPM
<b>TIM-651-RA*</b>	Quarts	Quarts	TIM-746	Rigid Automatic	1/2"	2.5 GPM
<b>TIM-651-RM*</b>	Quarts	Quarts	TIM-753	Rigid Manual	1/2"	2.5 GPM
<b>TIM-651-RMHF*</b>	Quarts	Quarts	TIM-752	Rigid Manual Hi-flow	15/16"	4.0 GPM

\*This meter incorporates a new tip assembly design. The compression nuts have been sealed with Loctite® 680 Retaining Compound at the factory during the assembly process. This ensures that the tip assemblies will not come loose during normal use.



TIM-651-RM



TIM-743



TIM-753



TIM-747



TIM-746



TIM-752



TIM-743-1

# Oil Control Handles

## “900” Series Digital Preset Meters

**Ergonomic** - “900” Series meters are designed with an anatomical hand grip and a trigger that requires minimal pressure to operate.

**Patented Extension** - All digital preset meters are equipped with a patented 5-position extension that threads directly into the meters body. Units with a rigid extension are also equipped with a rotatable non-drip tip.

**Programmable** - User can store (5) programmable preset values in the meter’s memory that can be easily recalled at the time of dispense. The meter always stores the amount of the previous dispense as a sixth preset value.

**Versatile** - Digital preset meters can be set up to measure in pints, quarts, gallons or liters.

**Trigger Guard** - Preset meters have a built-in trigger guard which helps prevent accidental dispensing.

**Swivel Guard** - Units are equipped with a black swivel guard which prevents the swivel from damaging the vehicle’s finish while being serviced.

**L.E.D. Display** - Large, easy to read L.E.D. display shows the dispensing amount and totalizer value at the same time.

**Filter** - All “900” Series digital control handles have built-in filters for added protection.

**Batteries** - Meters use (4) standard "AA" batteries which are field replaceable. The meter’s memory is retained even during power loss.



### Specifications

Measurements . . . . . Pts, Qts, Gals or Ltrs  
Meter Mechanism . . . . . Oval gear  
Inlet Size . . . . . 1/2"(F)  
Flow Range . . . . . 0.26 to 7.9 GPM  
Operating Temperature . . . . . 23 to 122 F  
Storage Temperature . . . . . -31 to 140 F  
Operating Pressure . . . . . 1000 PSI Max.  
Weight . . . . . 3.0 Pounds  
Accuracy . . . . .  $\pm 5\%$   
Repeatability . . . . .  $\pm 2\%$   
Power . . . . . (4) 1.5v “AA” Batteries

### Fluid Compatibility

Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

## “900” Series Digital Preset Meters

Model Number	Unit of Measure	Tip Extension	Description	Tip Diameter	Working Flow
<b>TIM-900A-1*</b>	Pints/Quarts/Gallons/Liters	TIM-758-1	Rigid Automatic	1/2"	2.5 GPM
<b>TIM-900A-HF</b>	Pints/Quarts/Gallons/Liters	TIM-757-1	Rigid Hi-flow Manual	15/16"	4.0 GPM
<b>TIM-901A-1</b>	Pints/Quarts/Gallons/Liters	TIM-756-1	Flex Automatic	1/2"	2.5 GPM
<b>TIM-901A-HF</b>	Pints/Quarts/Gallons/Liters	TIM-755-1	Flex Hi-flow Manual	15/16"	4.0 GPM



TIM-900A-1

All 900 Series meters include a black swivel guard. For other color swivel guards, see page 67.

\*Indicates most popular models.



TIM-758-1



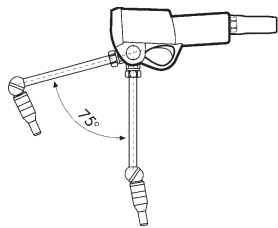
TIM-757-1



TIM-756-1



TIM-755-1



All TIM-900 Series digital preset meters have a patented five-position extension. Units equipped with rigid extensions also have a rotatable automatic non-drip tip.



# Oil Control Handles

## Standard and Preset Mechanical Meters

**Balanced Design** - Standard and preset mechanical meters have a light-weight, balanced design for ease of use.

**Impact Resistant** - An impact resistant nylon shroud protects the meter’s knob and register dial.

**Trigger Guard** - Preset meters have a built-in trigger guard which helps prevent accidental dispensing.

**Trigger Lock** - All mechanical style meters have a built-in trigger lock, allowing hands-free operation.

**Filter** - All mechanical style control handles have built-in filters for added protection.

**Manual Tips** - Units come equipped with “manual” non-drip tips in either standard or hi-flow configurations.

**Inlet Swivel** - 1/2" female swivel comes standard on all mechanical style meters.



### Specifications

Inlet Size . . . . . 1/2"(F)  
Flow Range . . . . . 0.4 to 3.0 GPM  
Operating Temperature . . . . 45 to 110 F  
Operating Pressure . . . . 1000 PSI Max.  
Weight (TIM-770-M) . . . . . 3.7 Pounds  
Weight (TIM-911-HF) . . . . . 4.0 Pounds  
Accuracy - Preset . . . . . ±.3%  
Accuracy - Mechanical . . . . . ±.65%

### Fluid Compatibility

Antifreeze - (not compatible with preset versions)  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

## Standard Mechanical Meters

Model Number	Metered Units	Totalizer Units	Tip Extension	Description	Tip Diameter	Working Flow
<b>TIM-770-M</b>	16 Quarts	Gallons	TIM-743-R	Rigid Manual	5/8"	2.0 GPM
<b>TIM-770-HF</b>	16 Quarts	Gallons	TIM-743-RHF	Rigid Hi-flow Manual	15/16"	3.0 GPM
<b>TIM-773-M</b>	8 Pints	Pints	TIM-743	Flex Manual	5/8"	2.0 GPM
<b>TIM-775-M*</b>	16 Quarts	Gallons	TIM-743	Flex Manual	5/8"	2.0 GPM
<b>TIM-775-HF</b>	16 Quarts	Gallons	TIM-743-1	Flex Hi-flow Manual	15/16"	3.0 GPM



TIM-775-M

Order optional colored swivel guards separately, see page 67.

\*Indicates most popular models.

## Preset Mechanical Meters

Preset mechanical meters are not compatible with antifreeze.

Model Number	Metered Units	Totalizer Units	Tip Extension	Description	Tip Diameter	Working Flow
<b>TIM-910-HF</b>	16 Quarts	Quarts	TIM-743-RHF	Rigid Hi-flow manual	15/16"	3.0 GPM
<b>TIM-911-HF*</b>	60 Quarts	Gallons	TIM-743-RHF	Rigid Hi-flow manual	15/16"	3.0 GPM
<b>TIM-912-HF</b>	60 Gallons	Gallons	TIM-743-RHF	Rigid Hi-flow manual	15/16"	3.0 GPM



TIM-911-HF

Order optional colored swivel guards separately, see page 67.

\*Indicates most popular models.



TIM-743



TIM-743-1



TIM-743-R



TIM-743-RHF

# Oil Control Handles

## “760” Series Non-Metered Handles

**More Choices** - “760” Series control handles come in a wide variety of configurations. Two handle styles and seven different tips allow you to choose the handle that best fits your application.

**Light Weight** -Valve handles are made of aluminum creating a light-weight, perfectly-balanced design.

**Impact Resistant** - Rugged impact-resistant design stands up to the harshest environments.

**Filter** - All “760” Series control handles have built-in filters for added protection.

**Trigger Guard** - All “TG” style handles have a built-in trigger guard which helps prevent accidental dispensing.

**Trigger Lock** - All “TG” style handles have a built-in trigger lock, allowing hands-free operation.

**Non-drip Tips** - Handles are available in both manual and automatic non-drip tip configurations.



### Specifications

Inlet Size.....	1/2"(F)
Flow Range.....	0.4 to 4.0 GPM
Operating Pressure . . . .	1000 PSI Max.
Weight (TIM-761) . . . . .	1.9 Pounds
Weight (TIM-761-TG) . . . .	1.6 Pounds

### Fluid Compatibility

Antifreeze Mixtures
Automatic Transmission Fluid
Gear Oil
Hydraulic Oil
Motor Oil
Synthetic Oil

## “TG” Style Non-Metered Handles

Model Number	Description	Tip Extension	Tip Diameter	Working Flow
<b>TIM-761-TG</b>	Rigid Automatic	TIM-746	1/2"	2.5 GPM
<b>TIM-761-TGM*</b>	Rigid Manual	TIM-753	1/2"	2.5 GPM
<b>TIM-761-TGHF</b>	Rigid Hi-flow Manual	TIM-752	15/16"	4.0 GPM
<b>TIM-761-TGGO*</b>	90° Rigid Manual	TIM-742	1/2"	2.5 GPM
<b>TIM-762-TG*</b>	Flex Manual	TIM-743	5/8"	2.5 GPM
<b>TIM-762-TGA</b>	Flex Automatic	TIM-747	1/2"	2.5 GPM
<b>TIM-762-TGHF</b>	Flex Hi-flow Manual	TIM-743-1	15/16"	4.0 GPM



TIM-761-TGM

Order optional colored swivel guards separately, see page 67.

\*Indicates most popular models.

## Standard Non-Metered Handles

Model Number	Description	Tip Extension	Tip Diameter	Working Flow
<b>TIM-761</b>	Rigid Automatic	TIM-746	1/2"	2.5 GPM
<b>TIM-761-M*</b>	Rigid Manual	TIM-753	1/2"	2.5 GPM
<b>TIM-761-HF</b>	Rigid Hi-flow Manual	TIM-752	15/16"	4.0 GPM
<b>TIM-761-GO*</b>	90° Rigid Manual	TIM-742	1/2"	2.5 GPM
<b>TIM-762*</b>	Flex Manual	TIM-743	5/8"	2.5 GPM
<b>TIM-762-A</b>	Flex Automatic	TIM-747	1/2"	2.5 GPM
<b>TIM-762-HF</b>	Flex Hi-flow Manual	TIM-743-1	15/16"	4.0 GPM



TIM-762-HF

Order optional colored swivel guards separately, see page 67.

\*Indicates most popular models.



TIM-743



TIM-753



TIM-747



TIM-746



TIM-742



TIM-752



TIM-743-1

# Oil Control Handles



## ARO Non-Metered Handles

**Standard and Hi-Flow** - ARO non-metered control handles are offered in both standard and hi-flow versions to cover a wide variety of applications.

**Heavy-Duty** - Rugged impact-resistant design stands up to the harshest environments.

**Filter** - All ARO non-metered control handles have built-in filters for added protection.

**Trigger Lock** - Handles have a built-in trigger lock, allowing hands-free operation.

**Non-drip Tips** - All control handles come with manual non-drip tips.

**Swivel** - Standard control handles include 1/2" swivel. Order swivels for hi-flow versions separately.

**5-Year Warranty** - All ARO standard and hi-flow non-metered control handles come with a 5-year limited warranty.



### Specifications

Inlet Size (Standard) . . . . . 1/2" NPT (F)  
Inlet Size (Hi-Flow) . . . . . 3/4" NPT (F)  
Flow Range (Standard) . . . . . 0.4-3 GPM  
Flow Range (Hi-Flow) . . . . . 0.4-10 GPM  
Weight (635392) . . . . . 2.2 pounds  
Weight (635193) . . . . . 3.2 pounds

### Fluid Compatibility

Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil



## Standard Non-Metered Handles

ARO standard non-metered handles include a 1/2" (F) inlet swivel. Order optional colored swivel guards separately, page 67.

Model Number	Description	Tip Diameter	Maximum PSI
<b>635392</b>	Flexible/Manual	1/2"	1,000
<b>635399</b>	90° Manual	1/2"	1,000



635399



635392

## Hi-Flow Non-Metered Handles

ARO hi-flow non-metered handles do not include an inlet swivel. Order optional swivel (635108) separately, see bottom of page.

Model Number	Use With	Description	Inlet	Tip Diameter	Maximum PSI
<b>635193</b>	1:1 , 3:1 & 5:1 pumps	Flexible-manual non-drip	3/4" (F)	1-1/8"	600
<b>635395-2</b>	9:1 pumps	Flexible-manual non-drip	3/4" (F)	1-1/8"	900



635395-2



635193

## Hi-Flow Swivel

Model Number	Products Handled	Description	Inlet/Outlet	Maximum PSI
<b>635108</b>	Engine oils & antifreeze	For use on ARO Hi-Flow non-metered valves	3/4" (M) x 3/4" (F)	1,000



635108



# Control Handles & Accessories

## Hi-Flow/Medium Pressure Oil Nozzle

Model Number	Products Handled	Inlet Size	Shut Off Style	Flow Rate	Maximum PSI
<b>TIM-48</b>	Fluid lubricants	1" swivel (F)	Manual	20 GPM	1,000



TIM-48

## UL Fuel Nozzles

Model Number	Products Handled	Inlet Size	Shut Off Style	Flow Rate	Maximum PSI
<b>TIM-40</b>	Diesel fuel	1"	Automatic	10 GPM	50
<b>TIM-43</b>	Unleaded gasoline	3/4"	Automatic	25 GPM	50
<b>TIM-46</b>	Diesel fuel	1"	Manual	40 GPM	50
<b>TIM-47</b>	Unleaded gasoline	3/4"	Manual	40 GPM	50



TIM-46

## UL Fuel Swivels

Model Number	Thread Size	Maximum PSI	Use With
<b>TIM-42</b>	1"(M) x 1" (F)	50	TIM-40 & TIM-46 nozzle
<b>TIM-45</b>	3/4"(M) x 3/4" (F)	50	TIM-43 & TIM-47 nozzle



TIM-42

## Water & Antifreeze Bibbs

Low volume dispensing valves for water or antifreeze. Both models have 1/4"(F) inlet.

Model Number	Spout	Pressure Rating
<b>TIM-93</b>	Metal	300 PSI
<b>TIM-94</b>	Neoprene	300 PSI



TIM-93



TIM-94

## Swivel Guards

Ideal for color coding products. Swivel guard helps protect cars from damage. Can be used on any ARO or American Lubrication oil control handle with a 1/2" swivel inlet.

Model Number	Color
<b>TIM-720-BLU</b>	Blue
<b>TIM-720-YEL</b>	Yellow
<b>TIM-720-BLK</b>	Black
<b>TIM-720-GRN</b>	Green
<b>TIM-720-RED</b>	Red



TIM-720 Series

# In-Line Meters

## 1/2" In-Line Mechanical Meters

Model Number	Inlet/Outlet	Fluid Compatibility	Metered Units	Totalizer Units	Working Flow	Maximum PSI
<b>TIM-616</b>	1/2" (F)	Fluid lubricants/anti-freeze	Quarts	Quarts	1-32 Qt./Min	1,000 PSI
<b>635141</b>	1/2" (F)	Fluid lubricants	Pints, 1-8	Pints	0.4 - 4.0 GPM	1,000
<b>635154</b>	1/2" (F)	Fluid lubricants	Quarts, 1-16	Gallons	0.4 - 4.0 GPM	1,000



TIM-616

## 1/2" - 1-1/2" In-Line Digital Meters

In-line fluid meters allow for easy monitoring of fluid dispensing. The following digital electronic meters include (2) 1.5V "N" style batteries (TIM-700-BATT). Accuracy within the flow range is  $\pm .5\%$ , and repeatability is  $\pm .2\%$ . All meters except 1/2" version include inlet filter screen.

Model Number	Inlet/Outlet	Fluid Compatibility	Metered Units	Totalizer Units	Working Flow	Maximum PSI
<b>TIM-615</b>	1/2" (F)	Fluid lubricants	Pts/Qts/Lts/Gals	Lts/Gals	1-32 Qts./Min	1,000
<b>TIM-717-1</b>	3/4" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	Gallons	Gallons	1.3 - 13 GPM	1,000
<b>TIM-717-2</b>	1" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	Gallons	Gallons	2.6 - 26 GPM	435
<b>TIM-717-3</b>	1-1/2" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	Gallons	Gallons	4.0 - 40 GPM	290



TIM-615



TIM-717-2

## 1" Hi-Flow Low Pressure Digital In-Line Meters

Model Number	Working Flow	Fluid Compatibility	Metered Units	Thread Size*	Maximum PSI
<b>TIM-41*</b>	3-30 GPM	Gasoline & diesel fuel	Gallons	1"	300
<b>TIM-44*</b>	3-30 GPM	ATF, motor oil & hydraulic oil	Gallons	1"	300



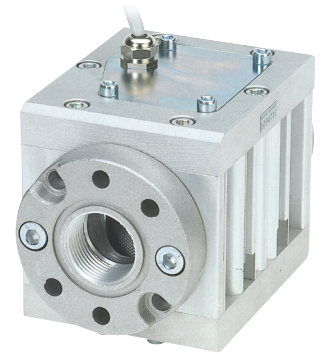
TIM-44

\*Meters are used for mounting between a hose and a control handle. When using in a 3/4" fluid line, install a reducing bushing 5" upstream of the material inlet and 1-1/4" downstream of the meter outlet.

## 1/2" - 1-1/2" Oval Gear In-Line Pulse Meters

The following pulse meters require an external power source not to exceed 28VAC or 28 VDC. Maximum current rating is 100mA. Accuracy within the flow range is  $\pm .5\%$ , and repeatability is  $\pm .2\%$ . All pulse meters except 1/2" version include inlet filter screen. Can be used with optional remote display located at the bottom of this page.

Model Number	Inlet/Outlet	Fluid Compatibility	Pulses/Gallon	Working Flow	Maximum PSI
<b>TIM-2000-5</b>	1/2" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	378	.25 - 8.0 GPM	1,000
<b>TIM-2000-11</b>	3/4" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	378	1.3 - 13.0 GPM	1,000
<b>TIM-2000-12</b>	1" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	38	2.6 - 26.0 GPM	435
<b>TIM-2000-13</b>	1-1/2" (F)	Lubricating oils, diesel fuel & antifreeze mixtures	38	4.0 - 40 GPM	290



TIM-2000-12

## Remote Displays for Pulse Meters

These remote displays allow for remote monitoring of product dispensing. They are designed to work with the 1/2" - 1-1/2" oval gear pulse meters located on the top of this page. The display shows both batch and cumulative totals. They are fully calibratable and include (2) 1.5V "N" style batteries (TIM-700-BATT). Can be mounted up to 165' away from the pulse meter using 2-conductor wire.

Model Number	Batch Display Range	Non-resetable Totalizer Range	Description
<b>TIM-2000-5RD</b>	.001 - 999.9 Qt.	1 - 999,999 Gal.	Remote display for use on TIM-2000-5.
<b>TIM-2000-11RD</b>	.001 - 999.9 Gal.	1 - 999,999 Gal.	Remote display for use on TIM-2000-11.
<b>TIM-2000-12RD</b>	.001 - 999.9 Gal.	1 - 999,999 Gal.	Remote display for use on TIM-2000-12.
<b>TIM-2000-13RD</b>	.001 - 999.9 Gal.	1 - 999,999 Gal.	Remote display for use on TIM-2000-13.



TIM-2000-12RD

## Oil Bars

Used as a dispensing option to reels, usually in conjunction with 5-quart measuring containers. Dispensing assembly now includes a custom splash-reduction adapter. Holes are pre-drilled in sides to facilitate the mounting of ready lights for use with fluid inventory control system. Available in single, double or triple spigot configurations. Units feature white powder-coated finish, non-drip spigots, flanged back for easy mounting, drip pan with bright zinc-plated grid and drain port. Shipped complete with mounting bracket and 30" connecting hose with 90 degree union adapter for easy connection to fluid line. All oil bars have the same dimensions: 25"H x 16"W x 7 1/2"D (above the drip pan). Metered units are equipped with TIM-715 digital quart meter.

Model Number	Number of Spigots	Metered or Non-Metered
TIM-1-A	1	Non-metered
TIM-1A-DM	1	Metered
TIM-2-A	2	Non-metered
TIM-2A-DM	2	Metered
TIM-3-A	3	Non-metered
TIM-3A-DM	3	Metered



TIM-2A-DM

## Oil Bar Accessories

Model Number	Description
TIM-4-A	<b>Meter Mounting Kit</b> - For mounting digital oil meter to a non-metered oil bar. One kit required for each meter.
TIM-6	<b>Adapter Kit</b> - Used to connect fluid dispensing system solenoid valve to oil bar. Use one kit per outlet.
TIM-500-FV	<b>Flow Control Valve</b> - Used in the material line that supplies the oil bar to control and adjust the delivery rate and prevent splashing.



TIM-500-FV

## Measuring Containers & Accessories

Model Number	Description
<b>TIM-30-1</b>	<b>6-Pack of 1-quart Graduated Measuring Containers</b> - Color is transparent white for easy viewing of liquid level. Box contains 6 units.
<b>TIM-30-2</b>	<b>6-Pack of 2-quart Graduated Measuring Containers</b> - Color is transparent white for easy viewing of liquid level. Box contains 6 units.
<b>TIM-30-3</b>	<b>6-Pack of 3-quart Graduated Measuring Containers</b> - Color is transparent white for easy viewing of liquid level. Box contains 6 units.
<b>TIM-30-5A</b>	<b>6-Pack of 5-quart Graduated Measuring Containers</b> - Units include an easy-open hinged lid to help protect from contaminants. Color is transparent white for easy viewing of liquid level. Box contains 6 units.
<b>TIM-30-11A</b>	<b>Plastic Replacement Spout</b> - For TIM-30-5



## Funnels

Model Number	Description
<b>TIM-31-1</b>	<b>6-Pack of 6-1/4" Diameter Polypropylene Funnels with Detachable Spout</b> - Includes carrying handle, detachable 13-1/2" spout and removable brass filter screen.
<b>TIM-31-2</b>	<b>6-Pack of 9" Diameter Polypropylene Funnels with Detachable Spouts</b> - Includes detachable 13-1/2" spout and removable brass filter screen.
<b>TIM-31-3</b>	<b>6-Pack of 9-1/2" Diameter Large Capacity Polypropylene Funnels</b> - Includes removable brass filter screen.
<b>TIM-31-4</b>	<b>6-Pack of 11" x 7-1/2" Rectangular Diesel Fuel Funnels</b> - Polyethylene heavy-duty diesel fuel funnel has 1" outlet and a special removable filter screen which separates water droplets from the fuel.
<b>TIM-31-7</b>	<b>6-Pack of 6-1/4" Diameter Polypropylene Funnels with Detachable Offset Spouts</b> - Includes carrying handle, detachable offset spout and removable brass filter screen. Spout is offset 7" to assist in filling hard-to-reach fill ports.
<b>TIM-31-8</b>	<b>6-1/4" Diameter Plated Steel Funnel with Two Spouts</b> - Includes carrying handle, 3-1/2" detachable short polypropylene spout, 12-1/2" detachable flexible stainless steel spout with removable brass filter screen and polypropylene tip. Individually bagged.

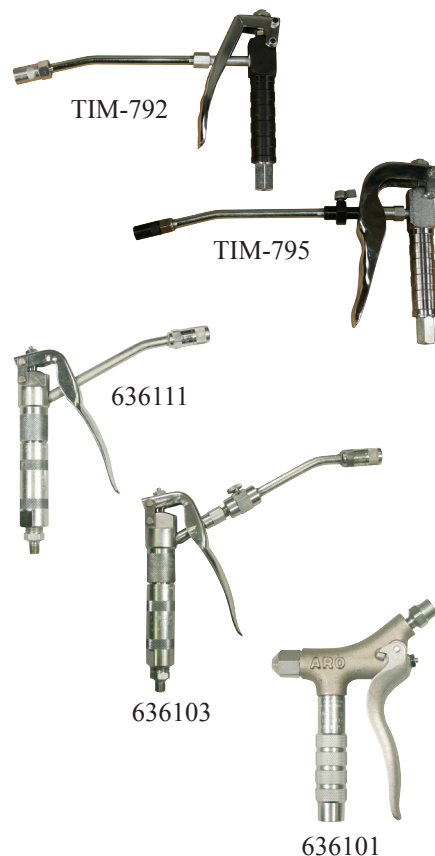




# Grease Control Handles

## Standard, Booster & Hi-Flow Control Handles

Model Number	Inlet Threads	Maximum Inlet PSI	Description
<b>TIM-791</b>	1/8" (M)	7,000	<b>Replacement Grease Control Handle for TIM-9000 and TIM-9001 Series Portable Grease Pumps.</b>
<b>TIM-792</b>	1/4" (F)	7,500	<b>Heavy-Duty Grease Control Handle</b>
<b>TIM-795</b>	1/4" (F)	8,000	<b>Heavy-Duty Booster Control Handle</b> - Built-in trigger booster feature delivers up to 8,000 PSI to help break loose tough fittings. Includes pressure relief vent for easy disconnect. <b>Do not use with whip hose.</b>
<b>636111</b>	1/8" (M) and 3/8" (F)	7,500	<b>ARO Heavy-duty Grease Control Handle.</b>
<b>636103</b>	1/8" (M) and 3/8" (F)	7,500	<b>ARO Heavy-duty Booster Control Handle</b> - Built-in trigger booster feature delivers up to 10,000 PSI to break loose tough fittings. Includes manual pressure vent for easy disconnect. <b>Do not use with whip hose.</b>
<b>636101</b>	3/8" (F)	7,500	<b>High Volume Grease Control Handle</b> - Does not include nozzle or hydraulic coupler. 1/8" (F) or 11/16-16" (M) fluid outlet. Order 636088 high-flow Z-swivel separately.



## Digital Grease Control Handle

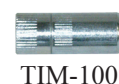
Metered dispensing nozzle for grease. The TIM-790 can accurately meter grease and display the amount dispensed on a digital LCD readout. Unit measures in ounces (4 digits) and totalizes in pounds (4 digits). Meter accuracy is plus or minus 3%. Trigger is equipped with a knob and screw assembly to allow the operator greater flow control. Equipped with rigid extension and standard diameter grease coupler. The handle houses the batteries that provide power to the meter. Two 1.5V standard AA size batteries are included. Battery life is estimated between 10,000 and 15,000 hours. Order Z-swivel separately.

Model Number	Inlet Threads	Maximum PSI	Description
<b>TIM-790</b>	1/4" (F)	7,500	Digital metered grease control handle.



## Grease Gun Couplers

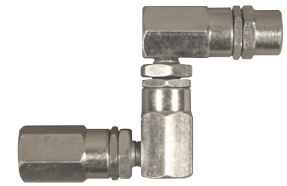
Model Number	Body	Thread Size	Ball Check	Maximum PSI
<b>TIM-100</b>	Narrow Diameter	1/8" (F)	Yes	10,000
<b>TIM-101</b>	Standard Diameter	1/8" (F)	Yes	10,000
<b>636027</b>	ARO Narrow Diameter Coupler	1/8" (F)	No	6,000



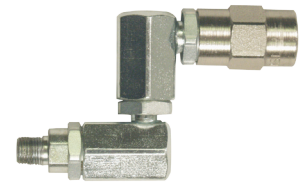
# Grease Control Handle Accessories

## Grease Swivels & Accessories

Model Number	Type	Thread Size	Maximum PSI	Use With
<b>TIM-110</b>	Z-Swivel	1/2"(M) x 1/4"(M)	6,000	Existing Alemite or Lincoln grease systems
<b>TIM-111</b>	Z-Swivel	1/4"(M) x 1/4"(F)	6,000	Existing Balcrank or Graco grease systems
<b>TIM-112</b>	Z-Swivel	1/8"(M) x 1/4"(M)	6,000	TIM-790 and ALEC 1/4" ID grease hoses
<b>TIM-113</b>	Z-Swivel	3/8"(F) x 1/4"(M)	6,000	TIM-790 and ALEC 3/8" ID grease hoses
<b>TIM-114</b>	Z-Swivel	1/8"(M) x 1/8"(F)	6,000	Replacement for TIM-9000 and TIM-9001 portable grease units
<b>TIM-115</b>	Z-Swivel	1/8"(F) x 3/8"(F)	6,000	3/8" ID grease systems
<b>636077</b>	Z-Swivel	1/8"(M) x 1/8"(F)	8,000	1/4" ID grease systems
<b>636083</b>	Z-Swivel	1/8"(F) x 3/8"(F)	8,000	3/8" ID grease systems
<b>636088</b>	Z-Swivel	3/8"(M) x 3/8"(F)	8,000	3/8" ID high-volume grease systems
<b>635106</b>	Z-Swivel	1/2"(F) x 3/8"(M)	8,000	High-volume grease systems
<b>636075</b>	Straight	1/8"(M) x 1/8"(F)	8,000	Grease systems
<b>636085</b>	Straight	3/8"(M) x 3/8"(F)	8,000	Grease systems



TIM-115



636077



636085

## Optional Whip Hoses

High pressure grease whip hoses can be connected to the outlet side of the rigid extension of a grease control handle to allow the service technician to access hard-to-reach fittings. These hose assemblies are constructed of two-wire braid hose and high pressure couplings giving them a working pressure of 5,000 PSI. **Do not use whip hoses with booster control handles (636103 & TIM-795).**

Model Number	Thread Sizes	Hose Length	Connection Info
<b>TIM-4360</b>	1/8"(M) x 1/8"(M)	12"	Order TIM-1230 adapter to connect to grease gun extension.
<b>TIM-4361</b>	1/8"(M) x 1/8"(M)	18"	Order TIM-1230 adapter to connect to grease gun extension.
<b>629742</b>	1/8"(M) x 1/8"(F)	29"	Connect whip hose directly to grease gun extension. Includes straight swivel, 90° adapter and hydraulic coupler.



TIM-4361

# Fluid Inventory Control System

## TIM-2002

**Easy to Operate** - Two-line alpha-numeric LED display prompts the user with operating instructions.

**Product Name Display** - Keypad can be set up to display any of 24 pre-programmed product descriptions.

**Password Protection** - Programmable password protection (three levels) prevents unauthorized use.

**Extremely Accurate** - Field calibrateable (two different methods) for the highest level of accuracy.

**Changeable Unit of Measure** - Can be programmed in the field for pints, quarts, gallons or liters.

**User Re-settable Totalizer** - Allows more inventory tracking options for the end user.

**Wall Mountable** - Keypad and junction box include built-in wall mount bracket for ease of installation.

**Compact Design** - Small keypad with remote mounted wiring junction box takes up less space and gets wiring out of the way of the user.

**Full Numeric Keypad** - Allows direct entry of preset amount. Competitive models have only three buttons to accomplish this task.



### Specifications

System Capacity	Single product, 1-12 dispensing points
System Requirements	Properly sized thermal relief kit required
Electrical Requirements	120 VAC, 60HZ
Pulse Meter	1000 PSI Max, 1/2" NPT (F)
Fluid Solenoid	3000 PSI Max, 1/2" NPT (F)
Wiring Requirements	22 Ga = <150' 18 Ga = 151' - 250' 16 Ga = 251' - 500'

### Fluid Compatibility

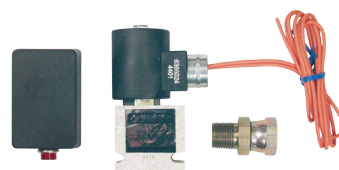
Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

## Fluid Inventory Control Systems

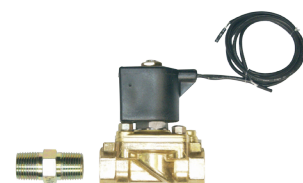
Model Number	Description
<b>TIM-2002</b>	<b>Fluid Inventory Control System</b> - Includes keypad unit, junction wiring box, 6' connection cable (not shown), pulse meter, 1/2" fluid solenoid valve, ready light assembly and 1/2" union adapter. Handles one product to one dispensing point. Expandable to handle up to twelve dispensing points by ordering additional TIM-2000-1 add-on station kits. Can be connected to an air solenoid safety kit (order separately). Control console can be wall mounted using built-in mounting feature. Requires either TIM-2000-4 or TIM-2000-4A pressure relief kit (order separately).
<b>TIM-2000-1</b>	<b>Add-On Station Kit</b> - For adding additional dispensing stations to the control console. Includes 3000 PSI 1/2" fluid solenoid valve with inlet filter, 1/2" union adapter and ready light assembly.
<b>TIM-2000-2</b>	<b>1/4" Air Solenoid Safety Kit</b> - For pumps with 1/4" air inlets. Shuts off air flow to the pump when fluid inventory control system is inactive. Helps prevent potential oil spills. Must be connected to junction wiring box.
<b>TIM-2000-2A</b>	<b>1/2" Air Solenoid Safety Kit</b> - For pumps with 1/2" air inlets. Shuts off air flow to the pump when fluid inventory control system is inactive. Helps prevent potential oil spills. Must be connected to junction wiring box.
<b>TIM-2000-3A</b>	<b>Wire Spool</b> - 500' spool of 2-conductor 22-gauge wire.
<b>TIM-2000-4</b>	<b>600 PSI Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Must be plumbed back to oil supply tank. Use on 3:1 and 5:1 pumps. <a href="#">A pressure relief kit is required on all TIM-2002 fluid inventory control systems.</a>
<b>TIM-2000-4A</b>	<b>900 PSI. Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Must be plumbed back to oil supply tank. Use on pumps with ratios above 5:1. <a href="#">A pressure relief kit is required on all TIM-2002 fluid inventory control systems.</a>
<b>TIM-2000-5</b>	<b>Replacement Pulse Meter</b> - 1000 PSI maximum working pressure, 1/2" NPT (F). (Big ALEC III and Big ALEC IV F.I.C. systems only. Not for use with antifreeze.)
<b>TIM-2000-6A</b>	<b>1/2" Y-Strainer</b> - 600 PSI maximum working pressure @ 100°F. Used for keeping contaminants out of the system.
<b>TIM-2000-7</b>	<b>6' Connector Cable</b> - Used to connect the keypad unit to the wiring junction box. Cables can be connected together for runs up to 30'.
<b>TIM-2000-8</b>	<b>10' Connector Cable</b> - Used to connect the keypad unit to the wiring junction box. Cables can be connected together for runs up to 30'.
<b>TIM-365-5S</b>	<b>Pulse Meter</b> - 1000 PSI maximum working pressure, 1/2" NPT (F). 40 pulse per gallon old style mechanical pulse meter for older Big ALEC and Little ALEC systems. Will also work on many competitive systems which use mechanical pulse meters. Handles antifreeze and antifreeze solutions as well as oils. <a href="#">Should be used in place of standard pulse meter when pumping antifreeze.</a>
<b>TIM-6</b>	<b>Oil Bar Adapter Kit</b> - For connecting fluid dispensing system solenoid valve to an oil bar. Use one kit per outlet.



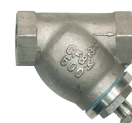
TIM-2002



TIM-2000-1



TIM-2000-2  
TIM-2000-2A



TIM-2000-6A



TIM-2000-7  
TIM-2000-8



# Fluid Inventory Control System

## MCO System

**Easy to Operate** - Each operator has his/her own pass code and can dispense product at will. System allows for an alpha-numeric job number to be entered at each dispense which can be used to reference license plates or work order ticket numbers. System can be set up with pre-programmed jobs which can be recalled by the users at time of dispense.

**Simultaneous Dispense** - System can have up to 32 simultaneous dispenses (one per keypad).

**Simplified Installation** - Pulse meter, fluid solenoid and fluid filter are built into a single component for ease of installation.

**Advanced Inventory Tracking** - Software allows for complete inventory reporting and can be sorted by user, date, product and job number.

**Flexibility** - System can control up to 384 dispense points through 32 keypads.

**Easy Setup** - All system programming can be done on a PC using a keyboard which is tied to the MCO system. This simplifies the installation and setup procedure.

**Tank Monitoring** - Software allows an unlimited number of tanks and products to be monitored. The system updates and displays the fluid level in each tank and warns when a low level condition occurs. The system will stop dispensing product when the fluid level in the tank reaches a user programmable critically low condition.

**Two-Valve System** - Available two-valve system allows for the utmost accuracy. Both valves remain open until the final 5% of the dispense, at which point the first valve closes and the second valve “trickles” the flow until the preset amount is reached.



### Specifications

System Capacity	32 keypads/384 dispense points
System Requirements	Pressure relief kit for each product on the system.
Computer Requirements	Dedicated PC with serial port running Microsoft Windows 95, 98, 2000 or XP.
Voltage Input	110 VAC, 60HZ
Voltage Output	24 VDC
Valve Assembly	1000 PSI Max, 1/2" NPT (F)
Simultaneous Dispense	32 Max
Unit of Measure	Pts, qts, gals, ltrs
Wiring Requirements	Call for wiring requirements

### Fluid Compatibility

Antifreeze Mixtures  
Automatic Transmission Fluid  
Gear Oil  
Hydraulic Oil  
Motor Oil  
Synthetic Oil

# Fluid Inventory Control System

## MCO System

Model Number	Description
<b>TIM-2100</b>	<b>Keypad and Power Unit</b> - Controls up to 4 dispense points. Can control up to 12 dispense points by adding (2) TIM-2100-EXP expansion power units. Up to 32 keypads can be used in a system. The power units are networked to each other and the last power unit is then connected to the PC. Keypads enable operators to input their pass code, job number, select the product and either manually enter or use a preset quantity to be dispensed. Requires 110 VAC. Minimum (1) per system required.
<b>TIM-2100-EXP</b>	<b>Add-On Power Unit</b> - Adds up to 4 dispensing points to the TIM-2100.
<b>TIM-2100-PC</b>	<b>MCO Communication Software and Serial Port Adapter</b> - Requires dedicated PC with available serial port running Microsoft Windows 95, 98, 2000 or XP. Enables the administrator to control and program the system from the PC. Allows programming of passwords, logging of all transactions, tank level monitoring and printing of custom reports. Also allows for administrator to log fluid delivery receipts for products on the system. Minimum (1) per system required.
<b>TIM-2100-V1</b>	<b>Dispense Assembly (single valve)</b> - Unit incorporates (1) solenoid valve, pulse meter and fluid filter into a single component. Specially designed removable bracket allows for easy wall or ceiling mount installation. 1/2" NPT (F) inlet/outlet. 1000 PSI max working pressure. Order either (1) TIM-2100-V1 or (1) TIM-2100-V2 per dispensing point. Not for use with antifreeze.
<b>TIM-2100-V2</b>	<b>Dispense assembly (dual-valve).</b> Two-valve system allows for the utmost accuracy. Both valves remain open until the final 5% of the dispense, at which point the first valve closes and the second valve "trickles" the flow until the preset amount is reached. Unit incorporates (2) solenoid valves, pulse meter and fluid filter into a single component. Specially designed removable bracket allows for easy wall or ceiling mount installation. 1/2" NPT (F) inlet/outlet. 1000 PSI max working pressure. Order either (1) TIM-2100-V1 or (1) TIM-2100-V2 per dispensing point. Not for use with antifreeze.
<b>TIM-2100-3</b>	<b>Optional LED Display</b> - 4" LED numeric display shows the amount being dispensed. Order (1) per keypad if desired.
<b>TIM-2100-A24</b>	<b>24-Conductor Shielded Wire</b> - Used to connect the power unit to the keypad and also used to connect the power unit to the expander units. 100' maximum run length (with this gauge wire).
<b>TIM-2100-B8</b>	<b>8-Conductor Shielded Wire</b> - Used to connect the power unit to the dispense assembly. 50' maximum run length (with this gauge wire).
<b>TIM-2100-D2</b>	<b>2-Conductor Shielded Wire</b> - Used to "daisy chain" the power units to each other, with the final connection leading to the PC containing the MCO software. 1650' maximum run length (with this gauge wire).
<b>TIM-2000-4</b>	<b>600 PSI Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Must be plumbed back to oil supply tank. Use on 3:1 and 5:1 pumps. <u>(1) pressure relief kit is required per product on all TIM-2100 fluid inventory control systems.</u>
<b>TIM-2000-4A</b>	<b>900 PSI Pressure Relief Kit</b> - Relieves pressure build-up in the fluid line due to thermal expansion. Must be plumbed back to oil supply tank. Use on pumps with ratios above 5:1. Required on all TIM-2100 fluid inventory control systems. <u>(1) pressure relief kit is required per product on all TIM-2100 fluid inventory control systems.</u>



TIM-2100



TIM-2100-EXP



TIM-2100-V1  
TIM-2100-V2



TIM-2100-3



TIM-2100-PC



# Waste Oil Equipment

## Self-Evacuating Oil Drain

**Self Evacuating** - Connect the house air supply directly to the preset regulator to evacuate the oil from the drain into any bulk waste oil storage tank.

**Heavy-Duty** - Heavy-duty all-steel tank stands up to the harshest environments.

**Large Capacity** - 24-gallon capacity allows user to perform more oil changes before having to evacuate the unit.

**Drain Pan** - Metal drain bowl has built-in filter screen to prevent foreign matter from entering the drain.

**Expansion Funnel** - Removable metal drain bowl expansion funnel (plastic on TIM-317) with built-in filter screen provides support for draining even the largest oil filters.

**Drain Hose** - Clear discharge hose with curved nozzle simplifies evacuation.

**Built-in Fluid Gauge** - Lets operator see the oil level in the waste oil drain.

**Safety** - Unit incorporates a tamper resistant air regulator with air gauge and a safety pop-off valve to prevent over pressurization.

**4-Wheel Design** - Allows easy maneuverability, even on uneven surfaces.



TIM-316-A



TIM-317

Model Number	Description
TIM-316-A	<b>Self-Evacuating "Pumpless" Waste Oil Drain.</b> Heavy-duty all-steel tank. 24-gallon capacity compatible with oils and antifreeze. Waste oil is collected in the drain and then evacuated into any bulk storage tank using house air pressure. Preset tamper-resistant air regulator with safety pop-off valve prevents over pressurization. Includes 2608 air connector, built-in fluid gauge, 9' discharge hose with curved nozzle and manual shut-off valve, 15" diameter metal drain bowl with filter screen and 21-1/2" removable metal drain bowl expansion funnel with oil filter draining screen. Stem adjusts 45-69". Powder coated black paint. (Order 210 air coupler separately, page 108.)
TIM-317	<b>Self-Evacuating "Pumpless" Waste Oil Drain.</b> Uses standard shop air set at 8 PSI to evacuate the drain into a waste oil holding tank. 24-gallon steel tank for use with used oils. Safety pop-off valve prevents over pressurization. Includes removable storage tray, built-in fluid gauge, 7' discharge hose with curved nozzle and manual shut-off valve, articulating 15-3/4" diameter metal drain bowl with oil filter draining screen and 24" removable plastic drain bowl expansion funnel. Stem adjusts 51-78". Powder coated black paint. (Order 2608 air connector and 210 air coupler separately.) Assembly required.

## 16-Gallon Drains

Model Number	Description
<b>TIM-315-1A</b>	<b>16-Gallon Portable Waste-Oil Drain</b> - Includes 15" diameter metal drain bowl with filter screen, removable 21-1/2" metal drain bowl expansion funnel with oil filter draining screen, platform dolly, built-in fluid level dipstick, 3/4" material quick disconnect (TIM-181) and suction tube. Height adjusts from 47-72". <b>Drum not included.</b>
<b>TIM-315-A</b>	<b>16-Gallon Portable Waste-Oil Drain</b> - Same as TIM-315 -1A above but includes black 16-gallon drum.
<b>TIM-315-DRUM</b>	<b>16-Gallon Black Replacement Drum</b> - For existing TIM-315 series waste oil drains.



TIM-315-A

## Polyethylene Drains

Model Number	Description
<b>TIM-318</b>	<b>8-Gallon Waste Oil Drain</b> - Drain has built-in handle, emptying spout and (4) wheels for easy maneuvering. Oil level can be viewed through translucent body. Height adjusts from 48" to 65".
<b>TIM-319</b>	<b>18-Gallon Waste Oil Drain</b> - Drain has built-in handle, emptying spout, 2" (F) NPT opening with plug, gate valve for gravity draining and (4) wheels for easy maneuvering. Oil level can be viewed through translucent body. Height adjusts from 55" to 73".



TIM-318



TIM-319

## Replacement Bowls

Model Number	Description
<b>TIM-315-KIT</b>	<b>15" Metal Replacement Bowl and Expansion Funnel for TIM-315 Series Drains</b>
<b>TIM-316-KIT</b>	<b>15" Metal Replacement Bowl and Expansion Funnel for TIM-316 Series Drains</b>
<b>TIM-315-BOWL</b>	<b>15" Metal Replacement Bowl for TIM-315 Series Drains</b> - Can be used with TIM-FUNNEL drain expansion funnel.
<b>TIM-316-BOWL</b>	<b>15" Metal Replacement Bowl for TIM-316 Series Drains</b> - Can be used with TIM-FUNNEL drain expansion funnel.
<b>TIM-FUNNEL</b>	<b>21-1/2" Metal Drain Bowl Expansion Funnel for TIM-315 and TIM-316 Series Drain Bowls.</b>
<b>TIM-318-BOWL</b>	<b>16" Replacement Bowl for TIM-318 and TIM-319 Drains</b>



TIM-316-KIT

# Waste Oil Equipment

## Low Profile Truck Drain

Model Number	Description
<b>TIM-310*</b>	<b>20-Gallon Waste Oil and Antifreeze Drain</b> - For truck maintenance facilities. Heavy-duty steel unit is powder-coated red. Drain has 5" diameter caster wheels, 38" long handle, 3/4" (M) drain connection and elbow. Designed to mate with 612999-4 or 612999-5 diaphragm pump evacuation system. 48" (L) x 31" (W) x 7-1/2" (H).

\*Order TIM-181-N waste oil evacuation adapter kit separately. See page 83.



TIM-310

## Quick Lube Pit Drain

Model Number	Description
<b>QL-308</b>	<b>35-Gallon Rolling Waste Oil Drain</b> - For use in quick lube facilities or truck maintenance shops. Heavy-duty steel unit is powder-coated yellow. Angled wheels provide easy drain movement and can be adjusted from 34-46". Drain bottom is sloped toward the two screened drain holes on the front and the rear of the unit. Drain holes are 1" (M). Drain includes pull handles on the front and rear of the unit, filter screen, and internal baffling. 31" (L) x 30-3/4" (W) x 11" (H). Order TIM-4675 camlock kit below, TIM-1000-BV ball valve (page 112) and TIM-4416-3 or TIM-4416-8 suction hose separately.
<b>TIM-4675</b>	<b>Waste Oil Adapter Kit</b> - Allows TIM-308-B pit drain to be used in gravity drain or diaphragm pump evacuation systems. Includes 1" (M) camlock adapter with dust cap for pit drain, 1" camlock coupler for suction hose and 1" camlock adapter to be used as a suction hose hanger.



QL-308



TIM-4675

## Portable Oil Drain

Model Number	Description
<b>TIM-31-14</b>	<b>15-Quart Compact Portable Oil Drain</b> - Polyethylene drain comes complete with large 7" drain receptacle, removable filter strainer, screw-on 7" lid with O-ring seal, small draining cap with spill proof gasket and carrying handles. Oil drain has casters on bottom for ease of use. Ideal for use with cars and motorcycles. 15 quart capacity.



TIM-31-14

## Diaphragm Pump Waste Oil Packages

Model Number	Description
<b>612999-4</b>	<b>Waste Oil Evacuation System</b> - Includes 666100-3C9C 1" diaphragm pump, TIM-461 wall mount bracket, 612999-4H 1" pump inlet hose assembly, 628067-3 1" pump outlet hose assembly, P-29122-624 air line filter/regulator/gauge, TIM-4214-3 1/4" air line hose, TIM-180 fluid coupler and TIM-250-BV air valve.
<b>612999-5</b>	<b>Waste Oil Evacuation System</b> - Includes 66605J-322 1/2" diaphragm pump, TIM-461 wall mount bracket, 612999-5H 3/4" pump inlet hose assembly, TIM-4418-5 1/2" pump outlet hose assembly, P-29122-624 air line filter/regulator/gauge, TIM-4214-3 1/4" air line hose and TIM-180 fluid coupler.



612999-4

## Differential Oil Evacuation Package

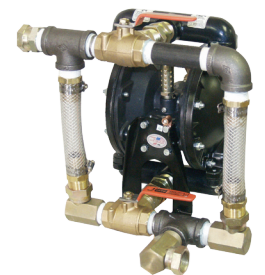
Model Number	Description
<b>612999-6</b>	<b>Portable 1/2" Evacuation System</b> - Designed to speed up vehicle transaxle differential drainage. Lightweight system's left rear bracket tube doubles as a fluid drainage outlet allowing the pump to be positioned on quick lube rolling drains. Can also be used on 16 and 55-gallon drums. Package includes 1/2" diaphragm pump, tube brackets for hanging unit, 8' fluid suction line, evacuation wand, P-29122-100 filter/regulator and 29850 gauge.



612999-6

## 1" Diaphragm Pump Reversing Valve Assembly

Model Number	Description
<b>TIM-4671-1</b>	<b>Reversing Valve Assembly</b> - Used in waste oil applications on lube trucks to reverse the flow direction of the diaphragm pump. Inlet and outlet threads are 1" (F). For use on ARO 1" diaphragm pumps.



TIM-4671-1  
(Pump not included)

# Waste Oil Equipment

## Waste Oil Tank Overfill Alarm

Model Number	Description
<b>TIM-370-1</b>	<b>Waste Oil Tank Overfill Alarm and Pump Shut-Off Assembly</b> - Used to shut off the air supply to the pump when the tank approaches full capacity. When the unit shuts the air off to the pump, air is diverted to a whistle mounted on the unit to signal that the tank is full. The valve is automatically reset when the tank is empty and the air pressure is turned off. Mounts into a 2" (F) NPT tank opening. ULC listed under overfill protection devices, type B, for pressure fill applications. Air inlet/outlet 1/4" (F) NPT. 150 PSI maximum. Air flow capacity 20 CFM at 100 PSI.



TIM-370-1

## Waste Oil Accessories

Model Number	Description
<b>TIM-2000-10</b>	<b>1" Y-Strainer</b> - Includes 30 mesh screen. Installs on suction side of waste oil system to prevent contaminants from causing costly damage to the waste oil diaphragm pump.
<b>TIM-WAND</b>	<b>Waste Oil Evacuation Wand</b> - For TIM-319 waste oil drains. 22" metal tube is coupled to a TIM-181 fluid connector. Designed to mate with ARO 612999-4 or 612999-5 diaphragm pump evacuation systems.



TIM-WAND



TIM-2000-10

## Waste Oil Tank Evacuation Kit

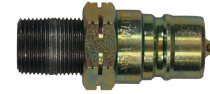
Model Number	Description
<b>TIM-4676</b>	<b>Adapter Kit</b> - Allows for easy evacuation of a waste oil tank. Includes 2" (F), cam lock adapter and 2" cam lock dust cap. Adapter threads directly to a 2" contractor installed suction pipe running from ground level back to the waste oil tank.



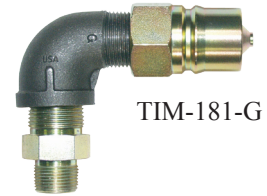
TIM-4676

## Fluid Connector Kits

Model Number	Description
<b>TIM-181-N</b>	<b>Waste Oil Drain Adapter Kit</b> - Use with TIM-310 truck drain. Enables drains to be used with ARO wall mount oil evacuation systems. Includes 3/4" fluid connector and 3/4" nipple.
<b>TIM-181-G</b>	<b>Waste Oil Drain Adapter Kit</b> - Allows American Lubrication drains to be used with existing Graco oil evacuation systems. Includes adapter, street elbow and 1" Graco compatible fluid connector.



TIM-181-N

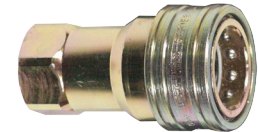


TIM-181-G

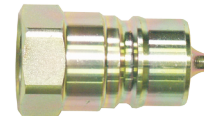
## Fluid Couplers and Connectors

Used in oil evacuation systems for quick disconnect of diaphragm pump and suction discharge hoses.

Thread Size	Fluid Coupler	Fluid Connector	Maximum PSI
1/2"(F)	<b>TIM-178</b>	<b>TIM-179</b>	5,000
3/4"(F)	<b>TIM-180</b>	<b>TIM-181</b>	3,625
1"(F)	<b>TIM-182</b>	<b>TIM-183</b>	4,000



TIM-180



TIM-181



# Hand-Operated Drum Pumps



TIM-75



TIM-77



TIM-79-SS



TIM-87



4188



TIM-74



4166

Model Number	Container Size	Products Handled	Downtube Type	Body Material	Pump Type	Discharge	Delivery
<b>TIM-75</b>	16 - 55-gallon drums	Oils & non-corrosive fluids	Telescoping 18" - 34.5"	Aluminum	Lever	Twisting non-drip spout	12 ounces per stroke
<b>TIM-77</b>	16 - 55-gallon drums	Oils & non-corrosive fluids	Telescoping 18" - 34.5"	Aluminum	Lever	Twisting non-drip spout	16 ounces per stroke
<b>TIM-79-SS</b>	16 - 55-gallon drums	Antifreeze, strong chemicals & solvents that are compatible with the materials used in the body and downtube of the pump	Nylon/ stainless Steel	Nylon & stainless steel w/Teflon® seals. Bung adapter is made of polypropylene	Vertical pull	Twisting non-drip spout	8 ounces per stroke
<b>TIM-87</b>	5 - 55-gallon drums	Antifreeze, windshield washer solvent & any product compatible with stainless steel and Teflon®	316 Stainless steel & Teflon®	316 Stainless steel & Teflon®	Vertical pull	Fixed 316 stainless steel spout	7 ounces per stroke
<b>4188</b>	5 - 55-gallon drums	Various chemicals, solvents and antifreeze	Polyethylene	Polyethylene/ polypropylene	Siphon	5' 8" hose	Siphon
<b>TIM-74</b>	16 - 55-gallon drums	Oils	Steel	Cast iron	Rotary	Spout with swing-arm return drain	1 gallon per 12 revolutions
<b>4166</b>	5 - 55-gallon drums	Antifreeze, windshield washer fluid, methanol, chlorinated solvents & some water based chemicals	Polypropylene	Polypropylene with Teflon® seals	Rotary	Twisting non-drip spout	8 ounces per revolution

# Hand-Operated Drum Pumps



TIM-323



TIM-321



TIM-70



TIM-322



4185-1



4190

Model Number	Container Size	Products Handled	Downtube Type	Body Material	Pump Type	Discharge	Delivery
<b>TIM-70</b>	55-gallon drum	Oils, gasoline, kerosene, diesel fuel & non-corrosive solvents	Steel	Steel with built-in fuel filter	Lever - push/pull - can be padlocked	8' hose with discharge nozzle	High-volume 4 strokes per gallon
<b>TIM-321</b>	16 - 55-gallon drums, bulk tanks	Oils	Telescoping 22" - 40"	Cast iron	Rotary - can be padlocked	Spout with swing-arm return drain	Quart stroke pump - one quart per cycle
<b>TIM-322</b>	16 - 55-gallon drums, bulk tanks	Oils, gasoline & diesel fuel	Telescoping 22" - 40"	Aluminum	Lever - pull/push - can be padlocked	5/8" x 8' delivery hose (3/4" (M) both ends) and nozzle	1 gallon per 5 strokes
<b>TIM-323</b>	16 - 55-gallon drums, bulk tanks	Oils, gasoline & diesel fuel	Telescoping 22" - 40"	Aluminum	Rotary - can be padlocked	5/8" x 8' delivery hose (3/4" (M) both ends) and nozzle	1 gallon per 10 strokes
<b>4185-1</b>	5-gallon	Oils	Steel/composite	Steel/composite	Vertical pull	Comes with 4' hose and curved metal spout as well as a steel goose neck spout which can be mounted directly to the pump's body.	1 quart per 15 strokes

## Butress Thread Adapter

Model Number	Description
<b>4190</b>	<b>Butress Thread Adapter</b> - Nylon adapter converts 2" butress thread to 2" NPT. Ideal for using pumps with 2" NPT male threads on containers which have 2" butress threads.

# Portable Oil Equipment

## 5-Gallon Gear Oil Dispenser

Model Number	Products Handled	Meter	Accessories	Hose	Nozzle
<b>TIM-60</b>	Gear oil	No	Carrying handle & drum cover	4'	Goose neck
<b>611170</b>	Gear oil	No	Drum cover Adjustable ratio 2:1, 4:1 & 7:1	5'	Goose neck



TIM-60  
(drum not included)



611170  
(drum not included)

## 16-Gallon Gear Oil Dispenser

Model Number	Products Handled	Meter	Accessories	Hose	Nozzle
<b>TIM-61</b>	Gear oil	No	Drum cover	4'	Goose neck



TIM-61  
(drum not included)

## 16-Gallon Heavy-Duty Oil Dispenser

Model Number	Products Handled	Meter	Accessories	Hose	Nozzle
<b>TIM-62-1</b>	Gear/Motor/ Synthetic oils & ATF	No	Bare pump and bung adapter only	5'	90° rigid w/ manual non-drip tip
<b>TIM-62</b>	Gear/Motor/ Synthetic oils & ATF	No	Drum cover & platform dolly	5'	90° rigid w/ manual non-drip tip
<b>TIM-62-LD</b>	Gear/Motor/ Synthetic oils & ATF	No	Drum cover	5'	90° rigid w/ manual non-drip tip
<b>TIM-63</b>	Gear oil	Digital in-line Pints	Drum cover & platform dolly	5'	90° rigid w/ manual non-drip tip
<b>TIM-63-LD</b>	Gear oil	Digital in-line Pints	Drum cover	5'	90° rigid w/ manual non-drip tip
<b>TIM-64</b>	Motor/Synthetic oils & ATF	Digital in-line Quarts	Drum cover & platform dolly	5'	45° rigid w/ manual non-drip tip
<b>TIM-64-LD</b>	Motor/Synthetic oils & ATF	Digital in-line Quarts	Drum cover	5'	45° rigid w/ manual non-drip tip



TIM-63  
(drum not included)

## Self-Contained Oil Dispensers

### Air-Charged Oil Dispenser

Model Number	Description
<b>TIM-390-A</b>	<b>Heavy-duty "Pumpless" Metered Oil Dispenser.</b> 20-gallon capacity. Ideal for use as a synthetic oil dispenser. The unit must be filled with oil and then charged to 100 PSI. The air hose can then be disconnected and the unit will dispense oil remotely. Dispenses approximately 8-gallons on the first charge and the remaining 12-gallons on the second charge. Flow rate approximately 2 gallons per minute. Safety pop-off valve prevents over-pressurization. Includes wide-mouth filling funnel (not shown), 2608 air connector, air filter, built-in fluid gauge, 6' discharge hose and a quart digital metered control valve. (Order 210 air coupler separately.)



TIM-390-A

### 24-Gallon Hand-Operated Oil Dispensing Cart

Model Number	Description
<b>TIM-392-A</b>	<b>"Self-Contained" Hand-Operated Oil Dispenser</b> - Heavy-duty all steel tank. 24-gallon capacity. Ideal for use as a synthetic motor oil or gear oil dispenser. Includes built-in fluid gauge, wide-mouth filling funnel (not shown) and a TIM-62-1 heavy-duty hand pump. Powder-coated black paint.
<b>TIM-392-B</b>	<b>"Self-Contained" Hand-Operated Metered Gear Oil Dispenser</b> - Heavy-duty all steel tank. 24-gallon capacity. Ideal for use as a gear oil dispenser. Includes built-in fluid gauge, wide-mouth filling funnel (not shown), TIM-62-1 heavy-duty hand pump and digital pint stationary meter. Powder-coated black paint.
<b>TIM-392-C</b>	<b>"Self-Contained" Hand-Operated Metered Oil Dispenser</b> - Heavy-duty all steel tank. 24-gallon capacity. Ideal for use as a synthetic motor oil or ATF dispenser. Includes built-in fluid gauge, wide-mouth filling funnel (not shown) TIM-62-1 heavy-duty hand pump and digital quart stationary meter. Powder-coated black paint.



TIM-392-C

### 24-Gallon Air-Operated Oil Dispensing Cart

Model Number	Description
<b>TIM-391-A</b>	<b>"Self-Contained" 3:1 Thunder Metered Oil Dispenser</b> - Heavy-duty all steel tank. 24-gallon capacity. Ideal for use as a synthetic motor oil or ATF dispenser. Includes 3:1 Thunder pump, P-29122-624 air filter/regulator and gauge, 2608 air connector, built-in fluid gauge, TIM-4418-6 (6') discharge hose, wide-mouth filling funnel (not shown) and a TIM-700-TGM quart digital metered control handle. Powder-coated black paint. (Order 210 air coupler separately)
<b>TIM-391-B</b>	<b>"Self-Contained" 3:1 Thunder Metered Gear Oil Dispenser</b> - Same as TIM-391-A above, except includes TIM-702-TGM pint digital metered control handle instead of quart metered control handle.



TIM-391-A

# Portable Oil Equipment

## 16-Gallon Air-Operated Oil Dispenser

Model Number	Description
<b>LP-2100-1</b>	<b>16-Gallon Portable Gear Oil Package</b> - Includes Thunder 3:1 pump, check valve, drum cover, digital pint meter, 6' material hose, control handle and platform dolly.
<b>LP-3100-1</b>	<b>16-Gallon Portable Gear Oil Package</b> - Includes Thunder 5:1 pump, check valve, drum cover, digital pint meter, 6' material hose, control handle, and platform dolly.



LP-2100-1  
(drum not included)

## 55-Gallon Air-Operated Oil Dispensing Cart

Model Number	Description
<b>TIM-730</b>	<b>55-Gallon Air-Operated Portable Pumping System</b> - Includes Thunder 3:1 ratio pump, bung adapter, siphon tube with quick disconnect cam lock, check valve, suction hose, air coupler and connector, air filter/regulator and gauge, 8' delivery hose, quart digital metered control handle and heavy-duty three-wheel cart. Cart has (2) pneumatic front wheels and (1) rear wheel with wheel lock.



TIM-730  
(drum not included)

## 55-Gallon Electric Oil Dispensing Cart

Model Number	Description
<b>TIM-731</b>	<b>55-Gallon Electric Portable Pumping System</b> - Includes TIM-1000 electric on-demand pump (110 VAC), siphon tube with quick disconnect cam lock, suction hose, 8' Delivery hose, quart digital metered control handle and heavy-duty 3-wheel cart. Cart has (2) pneumatic front wheels and (1) rear wheel with wheel lock.



TIM-731  
(drum not included)

## Portable Electric Oil Transfer Pump with Filter

Model Number	Description
<b>TIM-307</b>	<b>Electric Oil Filter and Oil Transfer Cart</b> - This filter cart is perfect for transferring oil and for decontaminating oil in bulk storage tanks. The oil is extracted using a 6' suction hose with an integrated inlet screen. The extracted oil is filtered through a 10 micron replaceable cartridge filter and then pumped back through a 6' discharge hose that has a 3' extension tube on the end. Unit has a pressure gauge installed on the filter head which indicates when the filter needs to be replaced. Pump requires 115 VAC and is rated at 8 GPM. Replacement filter number TIM-307-FIL.



TIM-307



## Professional 18v Grease Gun

The Machine Gun sets a new standard for cordless electric grease guns. This high-quality professional grade tool is powered by an 18-volt battery which allows for longer dispensing intervals between charges. Full 10,000 PSI pressure capability. 42" whip hose with bend guard for better accessibility and grease coupler with ball check (coupler includes contaminant protection cap). Kit includes 18-volt grease gun with air release valve, (2) battery packs, quick one hour battery charger (UL® rated), nylon shoulder strap and protective high impact carrying case. Comes packed in a four-color point-of-purchase display box. All guns and batteries are factory tested before shipping. Packaged (3) units to a case.

Model Number	Description
4155	Single-pack professional 18v grease gun
3-4155	3-pack professional 18v grease gun
24-4155	24-pack professional 18v grease gun
96-4155	96-pack professional 18v grease gun



4155



4155 P.O.P. Box

## Accessories

Model Number	Description
4155-1	18v Replacement Battery for 4155 Grease Guns
4155-2	Replacement Nylon Shoulder Strap
4155-3	Replacement 42" Whip Hose - Includes hose, bend guard w/ball check and contaminate protection cap.
4155-4	Grease Warmer - 12-volt thermal heater for grease gun barrels makes dispensing of grease easier in cold weather. Plug fits most 12-volt accessory ports (cigarette lighter).
4155-5	Replacement 1 hour Quick Charger for 4155 Grease Gun Batteries
4155-7	12-volt vehicle battery charger for 4155 Grease Gun



4155-5



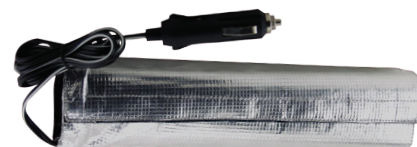
4155-2



4155-3



4155-1



4155-4



4155-7



# Grease Guns



4-Color  
POP Box



4105



4110  
4111



4115  
4116



4120

Model Number	Description
4105	<b>Standard Grease Gun</b> - 10,000 PSI rated. Aluminum head. Delivers 1 oz. in 23 strokes. Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Gun comes with plastic handle grip, air release valve, hydraulic coupler with ball check and rigid extension. Packaged in a 4-color POP box. For case quantities order part number 4105-10.
4110	<b>Deluxe Heavy-Duty Grease Gun</b> - 10,000 PSI rated. Aluminum head. Delivers 1 oz. in 23 strokes, 3-way loader capability (loader fitting included). Full pressure on variable or short strokes for controlled grease output and easy operation in tight quarters. Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Gun comes with rugged plastic handle grip, loader fitting, air release valve, hydraulic coupler with ball check and rigid extension. Packaged in a 4-color POP box. Compare to Alemite 500. For case quantities order part number 4110-10
4111	<b>Deluxe Heavy-Duty Grease Gun with 18" Hose</b> - Same as 4110 but also includes: TIM-4321 18" rubber flex hose. Packaged in a 4-color POP box. Compare to Alemite 500E. For case quantities order part number 4111-10.
4115	<b>Deluxe Heavy-Duty Grease Gun</b> - 10,000 PSI rated. Cast iron head. This new gun outperforms and has more features than the leading cast iron head grease gun on the market. Delivers 1 oz. in 23 strokes, 3-way loader capability (loader fitting optional). Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Gun comes with rugged plastic handle grip, air release valve, hydraulic coupler with ball check and rigid extension. Packaged in a 4-color POP box. Compare to Lincoln 1142. For case quantities order part number 4115-10
4116	<b>Deluxe Heavy-Duty Grease Gun with 18" Hose</b> - Same as 4115 but also includes: TIM-4321 18" rubber flex hose. Packaged in a 4-color POP box. Compare to Lincoln 1147. For case quantities order part number 4116-10.
4120	<b>Industrial Hi-Flow Heavy-Duty Grease Gun</b> - 10,000 PSI rated. Aluminum head. Delivers 1 oz. in 9 strokes, twice the volume per stroke when compared to the best variable stroke guns, 3-way loader capability (loader fitting included). Full pressure on variable or short strokes for controlled grease output and easy operation in tight quarters. Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Gun comes with rugged plastic handle grip, loader fitting, air release valve, heavy-duty hydraulic coupler with ball check and rigid extension. Packaged in a 4-color POP box. For case quantities order part number 4120-10.



4130  
4131



4125



4152



4127

Model Number	Description
4125	<b>Midget Grease Gun</b> - 5,000 PSI rated. Can be used as a lever type or pistol grip gun. Easy one-hand operation. Takes standard 3 oz. and 3-1/2 oz. grease cartridges. Packaged in a clear hanging clam shell POP display pack. For case quantities order part number 4125-10.
4127	<b>Suction Gun</b> - Suction gun with 11" vinyl hose. Low friction "O" ring for positive sealing. Pumps approximately 1 pint of non-corrosive liquid per stroke. For case quantities order part number 4127-10.
4130	<b>Deluxe Heavy-Duty Pistol Grip Grease Gun</b> - 7,300 PSI rated. Gun features unique 2-outlet port design which allows the hose or rigid extension to be mounted on the side or the top of the grease gun head. Aluminum head, 3-way loader capability (loader fitting included). Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Gun comes with loader fitting, air release valve, hydraulic coupler with ball check and rigid extension. Packaged in a 4-color POP box. Compare to Alemite 525 & Lincoln 1132. For case quantities order part number 4130-10.
4131	<b>Deluxe Heavy-Duty Pistol Grip Grease Gun with 18" Hose</b> - Same as 4130 but also includes: TIM-4321 18" rubber flex hose. Packaged in a 4-color POP box. Compare to Alemite 550 & Lincoln 1133. For case quantities order part number 4131-10.
4152	<b>Heavy-Duty Air-Operated Grease Gun</b> - Ideal for factory, fleet and agricultural use. A single shot of grease is discharged each time the trigger is pressed. Air input range from 40 PSI not to exceed 120 PSI. 40:1 ratio will generate 1,600 to 4,800 PSI discharge pressure. Balanced acute angle design reduces operator fatigue. Aluminum pump head for maximum strength and durability. 3-way loader capability (loader fitting included). Takes standard 14-1/2 oz. cartridge and has a 16 oz. bulk fill capacity. Follower design allows for cartridge, suction and filler pump loading. Gun comes with rugged pistol-grip handle, loader fitting, and heavy-duty hydraulic coupler with ball check and rigid extension. For case quantities order part number 4152-10.

# Grease Guns & Accessories

## Grease Gun Holder

Model Number	Description
<b>TIM-29</b>	<b>Grease Gun Holder</b> - Holds any standard grease gun with approximately 2-1/2" barrel.



TIM-29

## Grease Gun Filler Nipples

Used on the grease gun head for bulk loading applications using a grease filler pump. Standard 1/8" NPT (M).

Model Number	Description
<b>TIM-20</b>	American Lubrication TIM-80 filler pump.
<b>TIM-24</b>	Lincoln style filler valves.



TIM-20



TIM-24

## Hand Grease Gun Whip Hoses

Model Number	Description
<b>TIM-4320*</b>	<b>12" Whip Hose</b> - 12" rubber flex hose. Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4320-S*</b>	<b>12" Whip Hose</b> - 12" rubber flex hose. Coupled 1/8" NPT (M). Comes in clear clamshell display board packaging. 3,000 PSI maximum working pressure.
<b>TIM-4321*</b>	<b>18" Whip Hose</b> - 18" rubber flex hose. Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4321-S*</b>	<b>18" Whip Hose</b> - 18" rubber flex hose. Coupled 1/8" NPT (M). Comes in clear clamshell display board packaging. 3,000 PSI maximum working pressure.
<b>TIM-4322*</b>	<b>24" Whip Hose</b> - 24" rubber flex hose. Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4323*</b>	<b>36" Whip Hose</b> - 36" rubber flex hose. Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.



TIM-4320

**\*WARNING** - For use on hand grease guns only. Do not use with air operated equipment. 3,000 PSI maximum working pressure.

## Hand Grease Gun Whip Hose Assemblies

Model Number	Description
<b>TIM-4340*</b>	<b>12" Whip Hose Assembly With Narrow Diameter Coupler</b> - Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4341*</b>	<b>18" Whip Hose Assembly With Narrow Diameter Coupler</b> - Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4342*</b>	<b>12" Whip Hose Assembly With Standard Diameter Coupler</b> - Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4343*</b>	<b>18" Whip Hose Assembly With Standard Diameter Coupler</b> - Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.
<b>TIM-4349*</b>	<b>12" Whip Hose Assembly With Standard Buttonhead Coupler and Straight Swivel</b> - Coupled 1/8" NPT (M). 3,000 PSI maximum working pressure.

**\*WARNING** - For use on hand grease guns only. Do not use with air operated equipment. 3,000 PSI maximum working pressure.



TIM-4340



TIM-4349

## Hydraulic Grease Couplers

Model Number	Body	Thread Size	Ball Check	Maximum PSI	Packaging
<b>TIM-100</b>	Narrow diameter	1/8" (F)	Yes	10,000	Bulk
<b>TIM-100-S</b>	Narrow diameter	1/8" (F)	Yes	10,000	Clear bag display pack
<b>TIM-101</b>	Standard diameter	1/8" (F)	Yes	20,000	Bulk
<b>TIM-101-S</b>	Standard diameter	1/8" (F)	Yes	20,000	Clear bag display pack



TIM-100



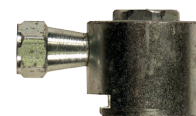
TIM-101

## Buttonhead Couplers

Model Number	Size	Type	Thread Size	Maximum PSI
<b>TIM-103</b>	Standard buttonhead	Push on or pull on	7/16"-27 (F)	4,000
<b>TIM-106</b>	Standard buttonhead	Pull on	1/8" (F)	4,000
<b>TIM-107</b>	Giant buttonhead	Pull on	1/8" (F)	4,000
<b>TIM-108</b>	Standard buttonhead	Push w/180° swivel	1/8" (F)	4,000



TIM-108

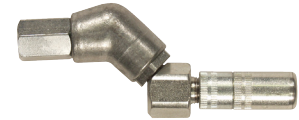


TIM-107

## Hydraulic Grease Adapters

Model Number	Description
<b>TIM-124-S</b>	<b>360° Adjustable-Angle Standard Diameter Coupler</b> - Locks in place at 60° increments. Inlet thread 1/8" NPT (F). Overall length 3". 7,000 PSI maximum working pressure. Comes in clear clamshell display board packaging.
<b>TIM-126-1S*</b>	<b>High-Pressure Needle Point Grease Adapter</b> - Connects to grease coupler via included locking sleeve adapter. Overall length 5-1/2". Comes in clear clamshell display board packaging.
<b>TIM-127-S*</b>	<b>Rigid Extension With 180° Swivel Narrow Diameter Coupler</b> - For lubricating hard to reach fittings. Ball check in coupler prevents leakage and loss of pressure. Can be screwed directly into the control valve or hand grease gun in place of the rigid extension. 1/8" NPT (M). Comes in clear clamshell display board packaging.
<b>TIM-150-S*</b>	<b>Grease Injector Needle</b> - Designed for working in close quarters and for universal joints, water pumps and metal cover springs where ordinary large-end couplers can't be used. Permits greasing of a sealed bearing. Connects via a grease fitting on the end to any standard or narrow diameter grease gun coupler. Plastic cover protects the needle when not in use. Comes in clear clamshell display board packaging.
<b>4410*</b>	<b>90° Grease Adapter</b> - Professional 90° recessed grease fitting adapter for push-on greasing of recessed fittings where obstructions do not permit the use of a regular grease coupler. Connects to grease coupler via included locking sleeve adapter.
<b>4411*</b>	<b>"Push-On" Buttonhead Grease Adapter</b> - Allows for easy greasing of button-head fittings. Connects to grease coupler via included locking sleeve adapter.
<b>4412*</b>	<b>"Push-On" Grease Fitting Adapter</b> - Allows for easy greasing of standard grease fittings where access is limited or in low-height areas. Connects to grease coupler via included locking sleeve adapter.

\* **WARNING:** For use on hand-operated grease guns only.



TIM-124-S



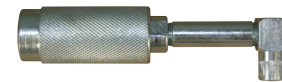
TIM-126-1S



TIM-127-S



TIM-150-S



4410



4411



4412

## Hand-Operated Grease Gun Adapter Kits

Model Number	Description
<b>4408*</b>	<b>7 Piece Quick Connect Grease Accessory Kit</b> - This kit can convert any grease gun fitted with a jaw type coupler into fine line greasing. This helps in effective lubrication of grease plugs, sealed bearings, push on greasing of recessed fittings or fittings in shoulders, low height areas or an extension for reaching those deep places.
<b>4409*</b>	<b>5 Piece Quick Connect Grease Accessory Kit</b> - This kit offers a choice of quick connect accessories to service a variety of connectors and facilitates greasing in hard-to-reach places.

\* **WARNING:** For use on hand-operated grease guns only.



4409



4408



## Grease Filler Pumps & Accessories

Model Number	Description
<b>TIM-80</b>	<b>35-lb. Hand-Operated Grease Filler Pump</b> - Ideal for filling hand grease guns. Includes follower plate, drum cover and loader valve which is compatible with the TIM-20 grease gun loader fitting.
<b>TIM-20</b>	<b>Filler Nipple</b> - For use on grease guns in bulk loading applications. Can be used to convert any manufacturer's grease gun to work with the TIM-80 filler pump. 1/8" (M) thread.
<b>TIM-21</b>	<b>Replacement Filler Valve</b> - For TIM-80 pumps. Can be used to convert other manufacturer's filler pumps to be used with TIM-20 filler nipples. 3/8" (F) thread.



TIM-80  
(drum not included)



TIM-20

## 35-lb. Hand Operated Grease Pump

Model Number	Description
<b>TIM-83-KM</b>	<b>35-lb. ???????</b>



TIM-83-KM

## Wheel Bearing Packers

Model Number	Description
<b>TIM-65</b>	<b>Wheel Bearing Packer</b> - Can be used with either hand or air-operated lube equipment. For all car, boat, trailer and RV bearings having an ID of 1/2" to 5", and a height of 1/4" to 2". Rugged steel construction.
<b>TIM-66-A</b>	<b>Drum-Mounted Wheel Bearing Packer with Pump</b> - Mounts directly to 25 - 50 lb. standard grease containers. Ideal for packing several bearings in a short amount of time. For all car, boat, trailer and RV bearings having an ID of 1/2" to 5", and a height of 1/4" to 2". Rugged steel construction.



TIM-66-A  
(drum not included)



TIM-65



# Portable Grease Equipment

## 35-lb. Grease Packages

Model Number	Description
<b>LP-2002-1B</b>	<b>35-lb. 2" 50:1 Thunder Grease Package</b> - Includes LM-2250E-21B pump, 94420 drum cover, 94334 carry handle, 640095-2B follower plate, 72290 adapter, 624201-10 material hose (10'), 636077 Z-swivel and 636111 control handle.
<b>TIM-9001</b>	<b>35-lb. 2-1/2" 50:1 Advantage Plus Grease Pump Package</b> - Includes TIM-9001-B pump, TIM-9001-6 drum cover, TIM-9001-8 spring-loaded follower plate, TIM-9000-HOSE 6' material hose, TIM-114 Z-swivel and TIM-791 control handle.
<b>LP-3001-1</b>	<b>35-lb. 3" 50:1 Thunder Grease Package</b> - Includes LM-2350E-21B pump, 94420 drum cover, 94334 carry handle, 640095-2B follower plate, 76493 adapter, 624201-10 material hose (10'), 636077 Z-swivel and 636103 booster control handle.



TIM-9001  
(drum not included)



LP-2002-1B  
(drum not included)

## 120-lb. Grease Packages

Model Number	Description
<b>LP-2006-1B</b>	<b>120-lb. 2" 50:1 Thunder Grease Package</b> - Includes LM-2250E-31B pump, 94421 drum cover, 640165 follower plate, 72290 adapter, 624201-6 material hose (6'), 636077 Z-swivel, 636111 control handle and 640058-2 band dolly
<b>TIM-9000</b>	<b>120-lb. 2-1/2" Advantage Plus Grease Pump Package</b> - Includes 50:1 TIM-9000-B pump, TIM-9000-6 drum cover, deluxe TIM-9000-7 spring-loaded follower plate, TIM-9000-HOSE 10' material hose, TIM-114 Z-swivel, TIM-791 control handle and TIM-352 platform dolly.
<b>LP-3004-1</b>	<b>120-lb. 3" 50:1 Thunder Grease Package</b> - Includes LM-2350E-31B pump, 94421 drum cover, 640165 follower plate, 76493 adapter, 624201-10 material hose (10'), 636077 Z-swivel, 636111 control handle and 640058-2 band dolly.



TIM-9000  
(drum not included)



LP-2006-1B  
(drum not included)

American Lubrication fittings are sold in clamshell display packs of 10 pieces and bags of 100 pieces. American Lubrication has one of the largest standing inventories of U.S. thread, metric thread, thread-forming, drive and stainless steel grease fittings. Our extensive offering of fittings covers virtually every automotive, agricultural, industrial, marine and lawn and garden application. For fittings not listed please call.



18-001-10

## 1/8" PTF Grease Fittings

100 Pack Model #	10 Pack Model #	Type	Thread	Length	100 Pack Model #	10 Pack Model #	Type	Thread	Length
18-001	18-001-10	Straight	1/8"	.62"	18-030	18-030-10	30°	1/8"	.91"
18-002	18-002-10	Straight	1/8" (F)	1.00"	18-045	18-045-10	45°	1/8"	.98"
18-003	18-003-10	Straight	1/8"	1.25"	18-065	18-065-10	65°	1/8"	.88"
18-004	18-004-10	Straight	1/8"	1.77"	18-090	18-090-10	90°	1/8"	.82"



18-090



18-001

## 1/4"-28 Grease Fittings

100 Pack Model #	10 Pack Model #	Type	Thread	Length	100 Pack Model #	10 Pack Model #	Type	Thread	Length
14-28001	14-28001-10	Straight	1/4"-28	.54"	14-28045	14-28045-10	45°	1/4"-28	.88"
14-28002	14-28002-10	Straight	1/4"-28	.69"	14-28046	14-28046-10	45°	1/4"-28	.97"
14-28003	14-28003-10	Straight	1/4"-28	.93"	14-28090	14-28090-10	90°	1/4"-28	.69"
14-28004	14-28004-10	Straight	1/4"-28	1.08"	14-28UNF	14-28UNF-10	Straight	1/4"-28 UNF	.49"



14-28045



14-28001



14-001

## 1/4" PTF Grease Fittings

100 Pack Model #	10 Pack Model #	Type	Thread	Length	100 Pack Model #	10 Pack Model #	Type	Thread	Length
14-001	14-001-10	Straight	1/4"	.80"	14-067	14-067-10	67-1/2°	1/4"	.96"



14-067



T-7504

## Special Thread Grease Fittings

Model Number	10 Pack Model #	Type	Thread	Length	Model Number	10 Pack Model #	Type	Thread	Length
T-7504	---	Straight	5/16"-24 UNF	.62"	T-7505	---	Straight	3/8"-24 UNF	.62"



T-7505

# Grease Fittings

## Stainless Steel Grease Fittings

Stainless steel grease fittings are designed to be used in harsh and highly corrosive environments. Stainless steel grease fittings use 303 stainless steel on the body and head, stainless steel stress relieving spring and a stainless steel ball. All stainless steel fittings have a single notch identification mark on the hexagonal corners.

100 Pack Model #	10 Pack Model #	Type	Thread	Length
<b>777-142801</b>	<b>777-142801-10</b>	Straight	1/4"-28	.54"
<b>777-142845</b>	<b>777-142845-10</b>	45°	1/4"-28	.88"
<b>777-142890</b>	<b>777-142890-10</b>	90°	1/4"-28	.69"
<b>777-1801</b>	<b>777-1801-10</b>	Straight	1/8"	.62"

100 Pack Model #	10 Pack Model #	Type	Thread	Length
<b>777-1845</b>	<b>777-1845-10</b>	45°	1/8"	.99"
<b>777-1890</b>	<b>777-1890-10</b>	90°	1/8"	.82"
<b>777-1401</b>	<b>777-1401-10</b>	Straight	1/4"	.82"



777-1801-10



T-7815

## Metric Thread Grease Fittings

100 Pack Model #	10 Pack Model #	Type	Thread	Length
<b>M6-001</b>	<b>M6-001-10</b>	Straight	M6 X 1	.53"
<b>M6-045</b>	<b>M6-045-10</b>	45°	M6 X 1	.89"
<b>M6-090</b>	<b>M6-090-10</b>	90°	M6 X 1	.71"
<b>M8-001</b>	<b>M8-001-10</b>	Straight	M8 X 1	.59"
<b>M8-045</b>	<b>M8-045-10</b>	45°	M8 X 1	.88"

100 Pack Model #	10 Pack Model #	Type	Thread	Length
<b>M8-090</b>	<b>M8-090-10</b>	90°	M8 X 1	.70"
<b>M10-001</b>	<b>M10-001-10</b>	Straight	M10 X 1	.60"
<b>M10-045</b>	<b>M10-045-10</b>	45°	M10 X 1	.93"
<b>M10-090</b>	<b>M10-090-10</b>	90°	M10 X 1	.75"



M8-045



M6-001

## Thread Forming Grease Fittings

Thread forming fittings have special hardened threads which allow the fitting to be screwed into a drilled hole which eliminates having to tap the hole. When installed, they force a rearrangement of the metal to conform with their own thread design, which is leak tight and permanent. They can easily be replaced by another thread forming fitting or standard fitting. All thread forming fittings have a yellow zinc finish and can withstand a 70-hour salt spray test.

Model Number	Type	Thread	Length
<b>T-7300*</b>	Straight	1/8"	.60"
<b>T-7301*</b>	65°	1/8"	.75"
<b>T-7302*</b>	90°	1/8"	.69"

Model Number	Type	Thread	Length
<b>T-7303*</b>	Straight	1/4"-28	.52"
<b>T-7304*</b>	45°	1/4"-28	.82"
<b>T-7305*</b>	90°	3/8"-28	.68"

\*This fitting sold individually.



T-7305



T-7303

## Drive Type Grease Fittings

Drive type fittings are most commonly used in high volume installations to avoid tapping costs. The serrated shank holds the fitting securely in place when driven into a hole. All drive fittings have a yellow zinc finish and can withstand a 70-hour salt spray test. *Actual drill size may depend upon the nature of the material into which the fitting is driven.*

Model Number	Type	Thread	Length
<b>T-7602**</b>	Straight	1/4"	.51"
<b>T-7603**</b>	Straight	3/16"	.47"
<b>T-7604**</b>	Straight	3/16"	.49"
<b>T-7605*</b>	Straight	3/16"	.50"
<b>T-7606**</b>	Straight	3/16"	.50"
<b>T-7607**</b>	Straight	1/4"	.41"
<b>T-7608*</b>	Straight	1/4"	.50"
<b>T-7609*</b>	Straight	5/16"	.58"

\*This fitting sold individually.

\*\*This fitting has no ball check, fittings sold individually.

Model Number	Type	Thread	Length
<b>T-7611*</b>	Straight	3/8"	.63"
<b>T-7613*</b>	65°	3/16"	.72"
<b>T-7614*</b>	65°	1/4"	.85"
<b>T-7615*</b>	Straight	6MM	.57"
<b>T-7616*</b>	Straight	8MM	.61"
<b>T-7619**</b>	Straight	1/8"	.47"
<b>T-7630**</b>	Straight	3/16"	.39"



T-7614



T-7609



T-7605

## Buttonhead Grease Fittings

All buttonhead fittings are straight fittings with a maximum pressure rating of 6,000 PSI. Standard buttonhead fittings are 5/8" diameter. Giant buttonhead fittings are 7/8" diameter.

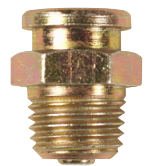
20 Pack Model #	Type	Thread	Length
<b>BH-18</b>	Standard	1/8"	.76"
<b>BH-14</b>	Standard	1/4"	.83"
<b>BH-38</b>	Standard	3/8"	.98"

\*This fitting sold individually.

Model Number	Type	Thread	Length
<b>T-7760*</b>	Giant	1/4" PTF	1.25"
<b>T-7761*</b>	Giant	3/8" PTF	1.31"
<b>T-7762*</b>	Giant	1/2" PTF	1.06"



T-7762



BH-14

## Flush-Type Grease Fittings

Flush-type grease fittings are used on heavy machinery or in areas where high profile, standard fittings cannot be used. Flush-type fittings are lubricated by using a needle point adapter (TIM-126-S) or similar extension with pointed nozzle.

20 Pack Model #	Type	Thread	Length
<b>T-7770*</b>	Giant	3/8" NPT	.75"
<b>T-7771*</b>	Giant	1/2" NPT	.87"

\*This fitting sold individually.

Model Number	Type	Thread	Length
<b>T-7772*</b>	Giant	3/4" PTF	.85"



T-7770

# Grease Fittings

## Vented and Leakproof Specialty Fittings

Safety vent fittings have a vent slot in the threads that allow bearings to be filled without building up internal pressure.

Leakproof fittings are equipped with a rubber seal instead of a ball check for use with light oils and heavy lubricants. Leakproof fittings are designed to handle up to 5,000 PSI of back pressure.

Model Number	Type	Thread	Length
T-7040	Vented	1/8"*	.66"

\*Thread is 1/8" PTF-SAE short.

Model Number	Type	Thread	Length
T-7700	Leakproof	1/8"	.85"



T-7040



T-7700

## Grease Fitting Extractors & Re-Threading Tools

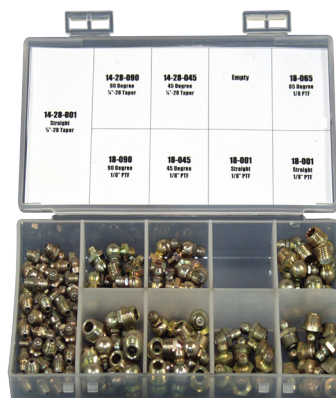
Model Number	Description
TIM-151-S	<b>Extractor And Re-Threading Tool</b> - Used for replacing broken 1/4"-28 grease fittings. Comes in clear clamshell display board packaging.
TIM-152-S	<b>Extractor And Re-Threading Tool</b> - Used for replacing broken 1/8" grease fittings. Comes in clear clamshell display board packaging.



TIM-151-S

## 110 Piece Standard Fitting Assortment

Model Number	Description
4450	<b>110 piece standard grease fitting assortment</b> - Includes (40) 14-28001, (10) 14-28045, (10) 14-28090, (20) 18-001, (10) 18-045, (10) 18-065, (10) 18-090



4450

## 110 Piece Metric Fitting Assortment

Model Number	Description
4451	<b>110 piece metric grease fitting assortment</b> - Includes (40) M6-001, (5) M6-045, (5) M6-090, (20) M8-001, (5) M8-045, (5) M8-090, (20) M10-001, (5) M10-045, (5) M10-090



4451

## 55 Piece Stainless Steel Fitting Assortment

Model Number	Description
4452	<b>55 piece stainless steel grease fitting assortment</b> - Includes (20) 777-142801, (5) 777-142845, (5) 777-142890, (10) 777-1801, (5) 777-1845, (5) 777-1890, (5) 777-1401



4452



# Tank Packages

## Bulk Oil Tank Packages

For almost 90 years, American Lubrication Equipment Corporation has provided the best solutions for dispensing lubricants. Our pre-assembled tank packages are the most cost-effective way to dispense bulk lubricant in today's marketplace. Tank packages eliminate the expense associated with lubrication equipment installations. With no installation labor or piping costs, you will save hundreds - if not thousands - of dollars.

Our tank packages provide the quickest way to get a new customer up and running. Place an order today and it will leave our factory usually within 48 hours on a truck bound for the location of your choice. When it arrives, simply remove the protective packaging, connect the air hose and fill with oil. It's the fastest way to get your new customer up and running.

**Cost Effective** - Tank packages eliminate the installation expense associated with equipment installations.

**Simple** - Remove the protective packaging, connect the air hose, fill with oil, and your customer is up and running!

**Fast Delivery** - Large inventory enables most packages to ship within 48 hours.

**More Choices** - American Lubrication offers the broadest selection of tank packages on the market.

**Protective Packaging** - Tank packages are covered with custom protective packaging to help protect them from shipping damage.

**Enamel Paint** - All tank packages come standard with an enamel painted finish.

**UL 142 and N.F.P.A. 30** - All tanks are built to UL 142 and also meet the N.F.P.A. 30 specifications.

**Fresh and Waste Oil Packages** - American Lubrication offers single and double-wall packages for fresh oil systems and waste oil systems.







# Tank Packages

## Prefix

### Pump, Reel & Meter Packages

Prefix	Description
<b>BLK</b>	Advantage Plus Series Reel
<b>TIM</b>	Industrial Series Reel

### Tapper Pump Packages

Prefix	Description
<b>BLK</b>	Always use this prefix on this type of package

### Waste Oil Packages

Prefix	Description
<b>BLK</b>	Always use this prefix on this type of package

## Main

### Applies to All Packages

Main	Tank Description
<b>C120</b>	120-gal. cube
<b>C120DW</b>	120-gal. double-wall cube
<b>180</b>	180-gal. bench
<b>250</b>	250-gal. bench
<b>250DW</b>	250-gal. double-wall bench
<b>275A</b>	275-gal. horizontal obround
<b>275ADW</b>	275-gal. horizontal obround double-wall
<b>275AV</b>	275-gal. vertical obround
<b>275VDW</b>	275-gal. vertical obround double-wall
<b>300</b>	300-gal. bench
<b>C500</b>	500-gal. cube
<b>C500DW</b>	500-gal. double-wall cube
<b>500RND</b>	500-gal. round skid
<b>500V</b>	500-gal. vertical round

## Suffix

### Pump, Reel & Meter Packages

Suffix	Pump	Oil Reel	Meter
<b>R13D</b>	3:1 ARO	1/2" x 25'	Quart Digital Meter
<b>R13P</b>	3:1 ARO	1/2" x 25'	Preset Digital Meter
<b>R15D</b>	5:1 ARO	1/2" x 25'	Quart Digital Meter
<b>R15P</b>	5:1 ARO	1/2" x 25'	Preset Digital Meter
<b>R23D</b>	3:1 ARO	1/2" x 50'	Quart Digital Meter
<b>R23P</b>	3:1 ARO	1/2" x 50'	Preset Digital Meter
<b>R25D</b>	5:1 ARO	1/2" x 50'	Quart Digital Meter
<b>R25P</b>	5:1 ARO	1/2" x 50'	Preset Digital Meter
<b>R1AD</b>	Electric	1/2" x 25'	Quart Digital Meter
<b>R1AP</b>	Electric	1/2" x 25'	Preset Digital Meter
<b>R2AD</b>	Electric	1/2" x 50'	Quart Digital Meter
<b>R2AP</b>	Electric	1/2" x 50'	Preset Digital Meter

### Tapper Pump Packages

Suffix	Pump	Accessories	Meter
<b>R33</b>	3:1 ARO	Tapper	No
<b>R33D</b>	3:1 ARO	Tapper	Digital Qt. in-line

### Waste Oil Packages

Suffix	Diaphragm Pump	Hose End	Overfill Alarm
<b>RWO</b>	1" ARO	Non-spill coupler	No
<b>RWOA</b>	1" ARO	Non-spill coupler	TIM-370-1

## Ordering Information

Prefix

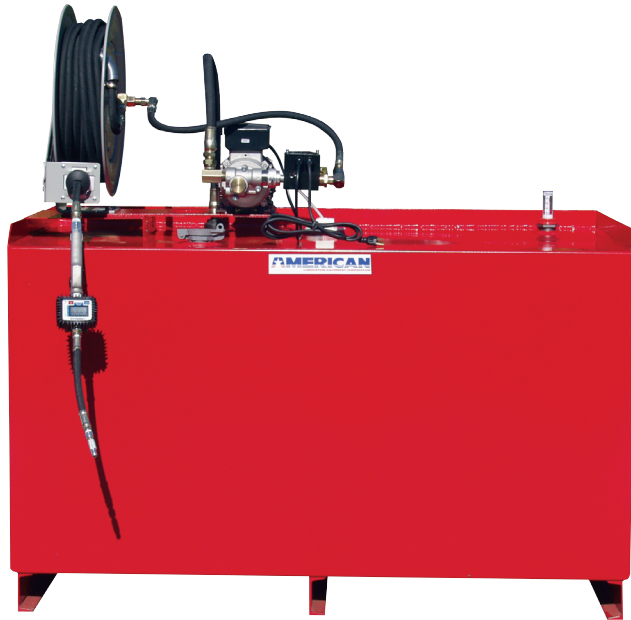
Main

Suffix

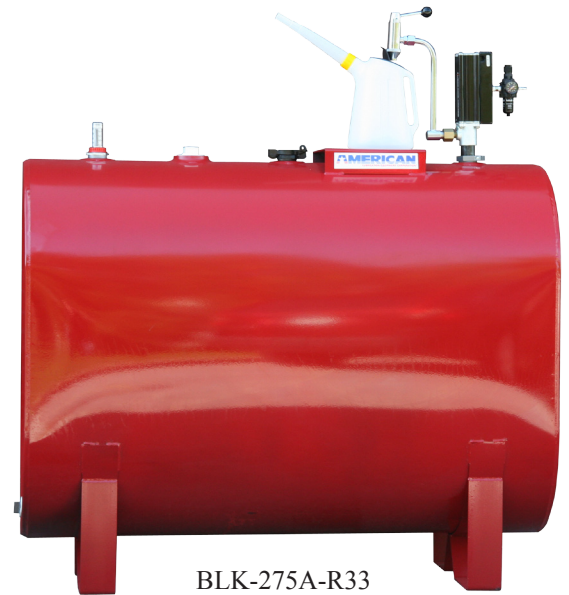
(Pick from charts above)

Example: To order a 275-gallon horizontal obround tank package with a 3:1 pump, 1/2" x 50' black Advantage Plus Series reel and digital meter you would go to the Prefix column, and under "Pump, Reel & Meter Packages" select the prefix "**BLK**". Next you would go to the Main column and select "**275A**", and then go to the Suffix column and under "Pump, Reel & Meter Packages" select "**R23D**". The final model number would be "**BLK-275A-R23D**".





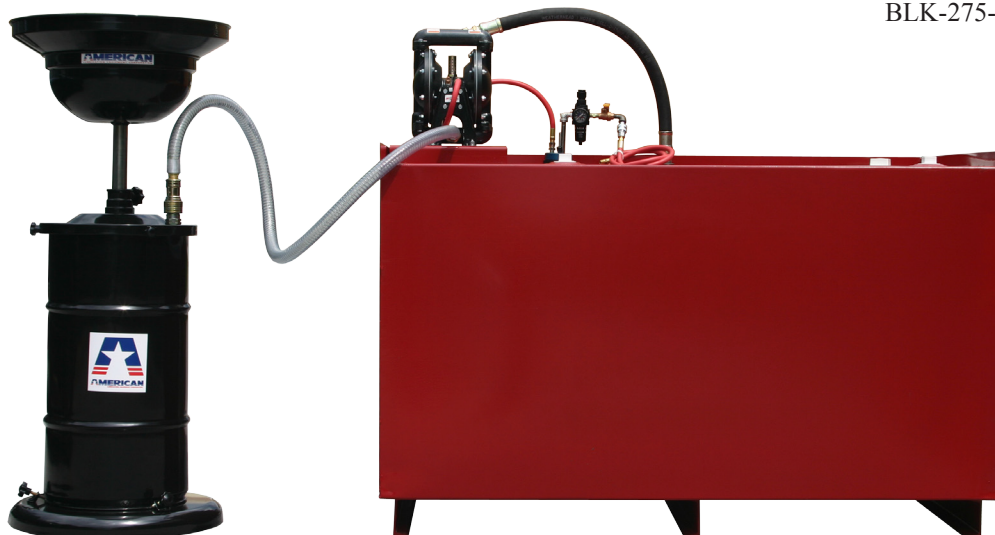
TIM-250-R2AD



BLK-275A-R33  
(5 quart measure not included)



BLK-275-R23D



(Waste oil drain not included)

BLK-300-RWOA

# Air System Components

## Air Filters

Model Number	Thread Size	Series	Drain Type	Bowl Type	Air Flow
<b>F-25121-200S</b>	1/4"	Miniature	Manual	Polycarbonate	38 CFM
<b>F-25121-221</b>	1/4"	Miniature	Automatic	Composite	38 CFM
<b>F-25221-110</b>	1/4"	Standard	Manual*	Metal	54 CFM
<b>F-25231-110</b>	3/8"	Standard	Manual*	Metal	100 CFM
<b>F-25241-110</b>	1/2"	Standard	Manual*	Metal	122 CFM
<b>25351-020</b>	3/4"	Heavy-Duty	Manual	Polycarbonate	87 CFM

\*Order 104068 to convert standard series manual drain units to automatic drain.



F-25121-221



F-25221-110

## Air Regulators

Model Number	Thread Size	Series	Pressure Range	Gauge Included	Air Flow
<b>R-27121-100</b>	1/4"	Miniature	5-125 PSI	No*	13 CFM
<b>R-27121-600</b>	1/4"	Miniature	5-125 PSI	Yes	13 CFM
<b>R-27221-600</b>	1/4"	Standard	5-125 PSI	Yes	100 CFM
<b>R-27231-600</b>	3/8"	Standard	5-125 PSI	Yes	130 CFM
<b>R-27241-600</b>	1/2"	Standard	5-125 PSI	Yes	150 CFM
<b>27354-000</b>	3/4"	Heavy-Duty	5-125 PSI	No*	287 CFM

\*For gauge selection see page 107.



R-27121-600



R-27221-600

## Air Lubricators

Model Number	Thread Size	Series	Bowl Capacity	Bowl Type	Air Flow
<b>L-26121-120</b>	1/4"	Miniature	1.1 Oz.	Composite	60 CFM
<b>L-26221-110</b>	1/4"	Standard	6 Oz.	Metal	75 CFM
<b>L-26231-110</b>	3/8"	Standard	6 Oz.	Metal	100 CFM
<b>L-26241-110</b>	1/2"	Standard	6 Oz.	Metal	110 CFM
<b>26351-020</b>	3/4"	Heavy-Duty	10 Oz.	Polycarbonate	75 CFM



L-26121-120



L-26221-110

## Air Filter/Regulator & Gauge Assemblies

Model Number	Thread Size	Series	Drain Type	Bowl Type	Air Flow
<b>P-29122-600</b>	1/4"	Miniature	Manual	Polycarbonate	13 CFM
<b>P-29122-624*</b>	1/4"	Miniature	Automatic	Composite	13 CFM
<b>P-29221-614</b>	1/4"	Standard	Automatic	Metal	93 CFM
<b>P-29231-614</b>	3/8"	Standard	Automatic	Metal	135 CFM
<b>P-29241-614</b>	1/2"	Standard	Automatic	Metal	140 CFM

\*This item also available in a 25 piece bulk pack. Order part number 25P-29122-624.



P-29122-624



P-29221-614

## Filter/Regulator/Lubricator Assemblies

Model Number	Thread Size	Series	Filter Drain Type	Bowl Type	Air Flow
<b>C-28122-801*</b>	1/4"	Miniature	Automatic	Polycarbonate	13 CFM
<b>C-28223-810*</b>	1/4"	Standard	Manual	Metal	54 CFM
<b>C-28233-810*</b>	3/8"	Standard	Manual	Metal	100 CFM
<b>C-28243-810*</b>	1/2"	Standard	Manual	Metal	110 CFM
<b>28353*</b>	3/4"	Heavy-Duty	Manual	Polycarbonate	75 CFM

\*All models include air gauge. Order 104068 to convert standard series manual drain units to automatic drain. Order 29969-2 to convert heavy-duty series manual drain unit to automatic drain.



C-28223-810

## Air Gauges

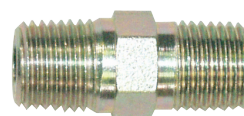
Model Number	Thread Size	Series Used On	Porting	Gauge Range	Gauge Diameter
<b>TIM-220</b>	1/8" (M)	Miniature	Back	0-160 PSI	1.5"
<b>TIM-221</b>	1/4" (M)	Standard & Heavy-Duty	Back	0-160 PSI	2"



TIM-220

## Air System Pipe Nipples

Model Number	Thread Size	Used On
<b>TIM-212</b>	1/4" (M) x (M)	1/4" Components
<b>Y-27-53C</b>	3/8" (M) x (M)	3/8" Components
<b>Y-27-54C</b>	1/2" (M) x (M)	1/2" Components
<b>Y-27-55C</b>	3/4" (M) x (M)	3/4" Components



TIM-212



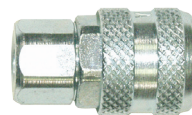
# Air Couplers & Connectors

## Aro Style 1/4" Capacity - 210 Series

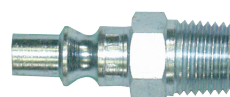
All couplers are “push-to-connect” providing automatic pin-type coupling. The average flow rate is 18 cfm at 90 PSIG inlet pressure. Maximum inlet pressure is 250 PSIG. Temperature range is -40°F to 200°F. Couplers and connectors within the 1/4" capacity 210 Series group are interchangeable.

Coupler Model Number	Thread Size
<b>210-212</b>	1/4" NPT (M)
<b>210</b>	1/4" NPT (F)

Connector Model Number	Thread Size
<b>2607</b>	1/8" NPT (M)
<b>2608</b>	1/4" NPT (M)
<b>2609</b>	1/4" NPT (F)



210



2608

## MS Series 1/4" Capacity - Industrial Interchange

All couplers are “push-to-connect” providing automatic pin-type coupling. The average flow rate is 36 cfm at 90 PSIG inlet pressure. Maximum inlet pressure is 250 PSIG. Temperature range is -40°F to 200°F. Couplers and connectors within the 1/4" capacity Industrial Interchange group are interchangeable.

Coupler Model Number	Thread Size
<b>MSCF22-000</b>	1/4" NPT (F)

Connector Model Number	Thread Size
<b>23902-210</b>	1/4" NPT (M)
<b>23902-200</b>	1/4" NPT (F)



MSCF22-000



23902-210

## High Flow Series 3/8" Capacity - Industrial Interchange

All couplers are “push-to-connect” providing automatic pin-type coupling. The average flow rate is 72 cfm at 90 PSIG inlet pressure. Maximum inlet pressure is 250 PSIG. Temperature range is -40°F to 200°F. Couplers and connectors within the 3/8" capacity High Flow Series Industrial Interchange group are interchangeable.

Coupler Model Number	Thread Size
<b>23103-300</b>	3/8" NPT (F)
<b>23103-004</b>	1/2" NPT (F)

Connector Model Number	Thread Size
<b>23903-310</b>	3/8" NPT (F)
<b>23903-410</b>	1/2" NPT (M)



23103-004



23903-410

Air Safety Blow Guns are designed to prevent pressure buildup above 29 PSIG if nozzle is obstructed (to meet OSHA requirements 29 CFR1910.242(b)). The composite body guns on this page are extremely lightweight and corrosion resistant. All blow guns are equipped with a 1/4" NPT (F) inlet.

**WARNING** - These blow guns should not be used for fluids other than compressed air, nor in applications which may exceed maximum recommended operating conditions. Proper eye protection should always be worn when using these devices.

Model Number	Body Material	Color	Max. Inlet Pressure	Tip Style	Trigger Style	Weight
<b>8440</b>	Polyester	Safety Yellow	180 PSI	Non-removable relieving	Thumb actuated lever	2.7 Oz.
<b>8338</b>	Polyester	Black	250 PSI	Standard	Hand actuated lever	4.8 Oz.
<b>8338-1S</b>	Polyester	Black	250 PSI	Air shield	Hand actuated lever	4.8 Oz.
<b>7444-J</b>	Cast aluminum	Silver	100 PSI	Non-removable relieving	Thumb button	5.3 Oz.
<b>7444-K</b>	Cast aluminum	Silver	180 PSI	Non-removable relieving	Thumb button	5.3 Oz.
<b>8451-1S</b>	Steel	Chrome	150 PSI	Standard	Thumb actuated lever	7.0 Oz.

Tip Style	Description
<b>Relieving</b>	Built-in orifice prevents pressure buildup above 29 PSI if nozzle is obstructed.
<b>Standard</b>	Tapered tip concentrates the air stream for efficient chip and dirt removal.
<b>Air Shield</b>	Tapered air shield tip generates a protective cone for chip deflection.
<b>Rubber</b>	Tapered rubber tip provides a leak-proof connection for blowing out fuel lines and other openings.



8440



8338-1S



7444-K



8338



7444-J



8451-1S

# Air System Accessories

## ARO-STOP Automatic Air Shut-off

ARO-STOP® shut-off valves are designed to prevent pump “runaway”. Pump runaway occurs when the material container is depleted, causing the pump to cycle fast and needlessly. The ARO-STOP® valve protects the pump by shutting off the air supply when the material container is empty or a fluid line on the outlet side of the pump is broken.

Model Number	Description	Air Inlet/Outlet	Pumps Used With
635040	<b>ARO-STOP® Valve Kit</b> - Includes 1/4" x 5' air hose, 1/4" Aro coupler and air connector. Maximum flow rate is 23 CFM at 90 PSI.	1/4"(F)	Series 200 pumps, all Thunder pumps, 1/2" diaphragm pumps
23644-400	<b>ARO-STOP® Valve</b>	1/2"(F)	Series 425 and Series 600 pumps, 1" diaphragm pumps



## Air Control Box

Model Number	Description
TIM-AIR-BOX	<b>Air Control Box</b> - For controlling the air to a pump or pumps from a remote location. Unit includes key switch and indicator light. Unit requires the use of an air solenoid valve and wire. 110 VAC input voltage.
TIM-2000-2	<b>1/4" Air Solenoid Safety Kit</b> - For pumps with 1/4" air inlets. Shuts off air flow to the pump when connected to the air control box (TIM-AIR-BOX). Helps prevent potential oil spills.
TIM-2000-2A	<b>1/2" Air Solenoid Safety Kit</b> - For pumps with 1/2" air inlets. Shuts off air flow to the pump when connected to the air control box (TIM-AIR-BOX). Helps prevent potential oil spills.
TIM-2000-3A	<b>Wire Spool</b> - 500' spool of 2-conductor 22-gauge wire.



TIM-AIR-BOX



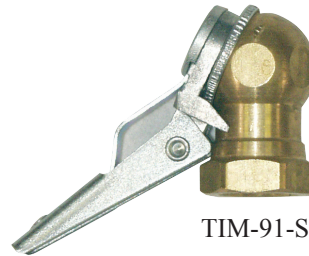
TIM-88



TIM-89



TIM-90-S



TIM-91-S



TIM-92-S

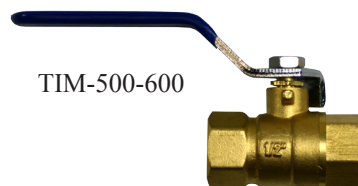
## Tire Inflation Gauges & Air Chucks

Model Number	Inlet	Description
<b>TIM-88</b>	1/4" (F) NPT	<b>Tire Inflator Gauge</b> - "Squeeze" trigger assembly simplifies tire filling. Unit has dual-head chuck and 12" hose. Pop-up gauge registers 10-130 PSI.
<b>TIM-89</b>	1/4" (F) NPT	<b>Deluxe Tire Inflator Gauge</b> - "Squeeze" trigger assembly simplifies tire filling. Unit has bleeder valve to allow quick adjustments for over pressurized tires, air gauge with protective cover, dual-head chuck and 12" hose. Pop-up gauge registers 0-140 PSI.
<b>TIM-90-S</b>	1/4" (F) NPT	<b>Dual Head Air Chuck</b> - For car and truck tires.
<b>TIM-91-S</b>	1/4" (F) NPT	<b>"Clip" Style Air Chuck</b> - For car and truck tires.
<b>TIM-92-S</b>	1/4" (F) NPT	<b>Single Head Air Chuck</b> - For car and truck tires.

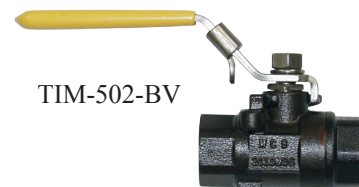
# Installation Accessories

## Low & Medium Pressure Shut-Off Valves

Inlet/ Outlet	Model Number	Working Pressure	25 Pack	100 Pack
1/4" (F)	<b>TIM-250-BV</b>	400 PSI	-----	-----
1/2" (F)	<b>TIM-500-BV</b>	400 PSI	-----	-----
1/2" (F)	<b>TIM-500-600</b>	600 PSI	<b>25-500-600</b>	<b>100-500-600</b>
1/2" (F)	<b>TIM-500-1000</b>	1000 PSI	<b>25-500-1000</b>	<b>100-500-1000</b>
1/2" (F)	<b>TIM-502-BV</b>	2000 PSI	-----	-----



TIM-500-600

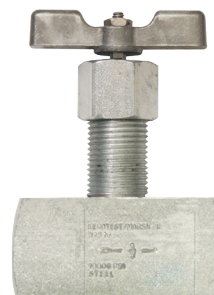


TIM-502-BV

## High Pressure Shut-Off Valves

High pressure carbon steel in-line needle valves for high pressure grease applications.

Model Number	Inlet/ Outlet	Working Pressure
<b>TIM-500-HP1</b>	1/2" (F) x 1/2" (F)	8000 PSI
<b>TIM-500-HP2</b>	1/2" (M) x 1/2" (F)	8000 PSI

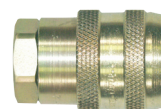


TIM-500-HP1

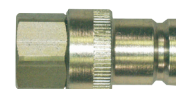
## High Pressure Coupler & Connector

Ideal for high pressure grease applications. Used in lube truck applications for removing and storing the grease control handles. 10,000 PSI working pressure.

Fluid Coupler	Thread Size	Fluid Connector
<b>TIM-192</b>	3/8" (F)	<b>TIM-193</b>



TIM-192



TIM-193

## Teflon® Thread Tape

1/2" x 65-1/2' roll of Teflon® threading tape. Sold in packs of 10, 100 and 250 rolls.

10 Rolls	100 Rolls	250 Rolls
<b>M-12-10</b>	<b>M-12-100</b>	<b>M-12-250</b>



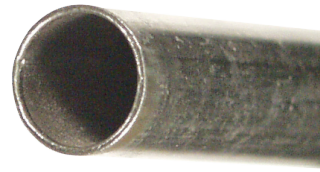
M-12-10



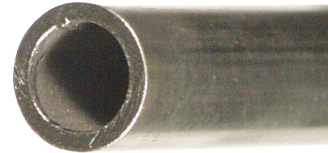
## Seamless Steel Tubing

5/8" O.D. seamless steel tubing for oil and grease applications. Tubing comes in 20' lengths. Tubing styles can be combined to reach the 1000' minimum purchase quantity.

Model Number	Application	Wall Thickness
<b>TIM-035-S1</b>	Oil	0.035
<b>TIM-083-S</b>	Grease	0.083



TIM-035-S

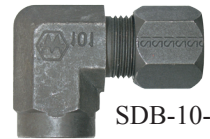


TIM-083-S

## Steel Tubing Connectors

5000 PSI (4:1 safety factor) 5/8" O.D. steel tubing compression fittings. May be used for either oil or grease.

Model Number	Description	Type
<b>SDB-10-TIM</b>	1/2" (F) x Tube	90 degree elbow
<b>SEB-10-TIM</b>	Tube x Tube	90 degree elbow
<b>SFB-10-TIM</b>	1/2" (M) x Tube	Straight
<b>SGB-10-TIM</b>	1/2" (F) x Tube	Straight
<b>SHB-10-TIM</b>	Tube x Tube	Straight
<b>SJB-10-TIM</b>	Tube x Tube x Tube	Tee
<b>SOB-10-TIM</b>	Tube x 1/2" (F) x Tube	Tee



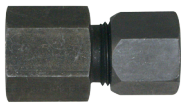
SDB-10-TIM



SEB-10-TIM



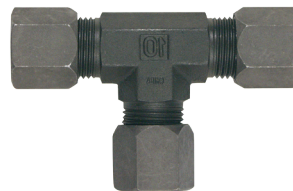
SFB-10-TIM



SGB-10-TIM



SHB-10-TIM



SJB-10-TIM



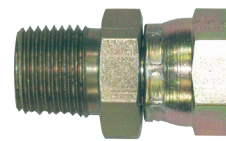
SOB-10-TIM

# Installation Accessories

## Straight (M) x (F) Union Adapters

Model Number	(M)	(F)	Max. PSI
<b>TIM-1404-22</b>	1/8"	1/8"	10,000
<b>TIM-1404-42</b>	1/4"	1/8"	10,000
<b>TIM-1404-44</b>	1/4"	1/4"	10,000
<b>TIM-1404-46</b>	1/4"	3/8"	7,000
<b>TIM-1404-64</b>	3/8"	1/4"	7,000
<b>TIM-1404-66</b>	3/8"	3/8"	7,000
<b>TIM-1404-68</b>	3/8"	1/2"	7,000
<b>TIM-1404-84</b>	1/2"	1/4"	7,000

Model Number	(M)	(F)	Max. PSI
<b>TIM-1404-86</b>	1/2"	3/8"	7,000
<b>TIM-1404-88</b>	1/2"	1/2"	7,000
<b>TIM-1404-128</b>	3/4"	1/2"	5,500
<b>TIM-1404-812</b>	1/2"	3/4"	5,500
<b>TIM-1404-1212</b>	3/4"	3/4"	5,500
<b>TIM-1404-1216</b>	3/4"	1"	4,000
<b>TIM-1404-1612</b>	1"	3/4"	4,000
<b>TIM-1404-1616</b>	1"	1"	4,000

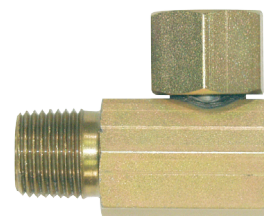


TIM-1404-88

## 90° (M) x (F) Union Adapters

Model Number	(M)	(F)	Max. PSI
<b>TIM-1501-44</b>	1/4"	1/4"	10,000
<b>TIM-1501-66</b>	3/8"	3/8"	7,000
<b>TIM-1501-86</b>	1/2"	3/8"	7,000

Model Number	(M)	(F)	Max. PSI
<b>TIM-1501-88</b>	1/2"	1/2"	7,000
<b>TIM-1501-1212</b>	3/4"	3/4"	5,500

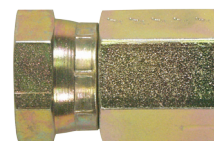


TIM-1501-88

## Straight (F) x (F) Union Adapters

Model Number	(F)	(F)	Max. PSI
<b>TIM-1405-44</b>	1/4"	1/4"	10,000
<b>TIM-1405-64</b>	3/8"	1/4"	7,000
<b>TIM-1405-86</b>	1/2"	3/8"	7,000
<b>TIM-1405-88</b>	1/2"	1/2"	7,000

Model Number	(F)	(F)	Max. PSI
<b>TIM-1405-128</b>	3/4"	1/2"	5,500
<b>TIM-1405-1212</b>	3/4"	3/4"	5,500
<b>TIM-1405-1616</b>	1"	1"	4,000

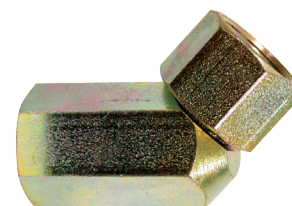


TIM-1405-88

## 45° (F) x (F) Union Adapters

Model Number	(F)	(F)	Max. PSI
<b>TIM-1504-44</b>	1/4"	1/4"	10,000
<b>TIM-1504-66</b>	3/8"	3/8"	7,000

Model Number	(F)	(F)	Max. PSI
<b>TIM-1504-88</b>	1/2"	1/2"	4,000

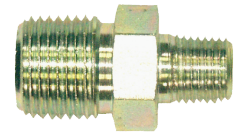


TIM-1504-88

## (M) x (M) Adapters

Model Number	(M)	(M)	Max. PSI
<b>TIM-1200</b>	1/8"	1/8"	10,000
<b>TIM-1201</b>	1/8"	1/4"	10,000
<b>TIM-1202</b>	1/8"	3/8"	7,000
<b>TIM-1209</b>	1/4"	1/2"-27	5,000
<b>TIM-212</b>	1/4"	1/4"	10,000
<b>TIM-1204</b>	1/4"	1/2"	7,000

Model Number	(M)	(M)	Max. PSI
<b>TIM-1205</b>	3/8"	3/8"	7,000
<b>TIM-1206</b>	3/8"	1/2"	7,000
<b>Y-27-54C</b>	1/2"	1/2"	7,000
<b>TIM-1208</b>	1/2"	3/4"	5,500
<b>TIM-1210</b>	3/4"	1"	4,000

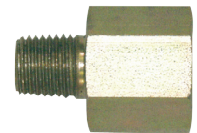


TIM-1204

## (M) x (F) Adapters

Model Number	(M)	(F)	Max. PSI
<b>TIM-1220</b>	1/8"	1/4"	10,000
<b>TIM-1221</b>	1/8"	3/8"	7,000
<b>TIM-1222</b>	1/8"	1/2"	7,000
<b>TIM-1223</b>	1/4"	3/8"	7,000

Model Number	(M)	(F)	Max. PSI
<b>TIM-1227</b>	1/4"	1/2"	7,000
<b>TIM-1225</b>	3/8"	1/2"	7,000
<b>TIM-1226</b>	1/2"	3/4"	5,500

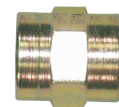


TIM-1223

## (F) x (F) Adapters

Model Number	(F)	(F)	Max. PSI
<b>TIM-1230</b>	1/8"	1/8"	10,000
<b>TIM-1260</b>	1/8"	1/2"-27	5,000

Model Number	(F)	(F)	Max. PSI
<b>4280</b>	1/8"	3/8"	7,000

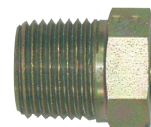


TIM-1230

## Reducing Bushings

Model Number	(M)	(F)	Max. PSI
<b>TIM-1240</b>	1/4"	1/8"	10,000
<b>TIM-1241</b>	3/8"	1/8"	7,000
<b>TIM-1242</b>	3/8"	1/4"	7,000

Model Number	(M)	(F)	Max. PSI
<b>TIM-1243</b>	1/2"	1/8"	7,000
<b>TIM-1244</b>	1/2"	1/4"	7,000
<b>TIM-1245</b>	1/2"	3/8"	7,000

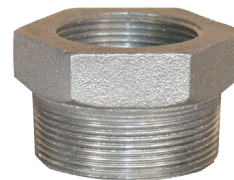


TIM-1245

# Installation & Tank Accessories

## Double-Tap Bushings

Model Number	Description
<b>TIM-160</b>	<b>Double-Tap Bushing</b> - For mounting 5:1 or 9:1 ratio stub pumps directly to an above-ground tank. Replaces bung adapter mounting. Extension tube of pump screws directly into the bottom of the bushing. Outside thread is 2" (M), inside thread is 1-1/2" (F). When using with an ARO 5:1 ratio Thunder pump order TIM-211 (1-1/2" x 3" nipple) separately.
<b>TIM-198</b>	<b>Double-Tap Bushing</b> - For mounting Thunder 3:1 ratio stub pumps directly to an above-ground tank. Replaces bung adapter mounting. Extension tube of pump screws directly into the included 3/4" x 3" nipple. Outside thread is 2" (M), inside thread is 3/4" (F).



TIM-160

## Fill Caps

Model Number	Description
<b>TIM-FILL-CAP</b>	<b>2" (M) Vented Lockable Fill Cap</b> - For above-ground tanks.
<b>24-FILL-CAP</b>	<b>24-Pack of of 2" (M) Lockable Vented Fill Caps (TIM-FILL-CAP)</b>
<b>48-FILL-CAP</b>	<b>48-Pack of of 2" (M) Lockable Vented Fill Caps (TIM-FILL-CAP)</b>
<b>96-FILL-CAP</b>	<b>96-Pack of of 2" (M) Lockable Vented Fill Caps (TIM-FILL-CAP)</b>



TIM-FILL-CAP

## Tank Vents

Model Number	Description
<b>TIM-MUSH-VENT</b>	<b>2" (F) Mushroom Vent</b> - Order TIM-287 (2" close nipple) separately.
<b>TIM-VENT-3</b>	<b>3" (M) Emergency Vent</b>
<b>TIM-VENT-4S</b>	<b>4" (M) Emergency Vent</b> - Slim design allows for use on both single and double-wall tanks.



TIM-MUSH-VENT



TIM-VENT-3

## 3-1/2 Gallon AST Spill Container

Model Number	Description
<b>TIM-SPILL-BOX3</b>	<b>Lockable Spill Container</b> - Installed on above-ground tanks to contain small spills and drips from the fill nozzle. Removable screen allows for used filters to be drained. 2" (M) NPT riser connection. White powder coated finish. 3-1/2 gallon capacity. ULC listed.



TIM-SPILL-BOX3

## Tank Plugs

Model Number	Description	Material
<b>TIM-PLUG-1</b>	1" tank plug	Black pipe
<b>TIM-PLUG-2</b>	2" tank plug	PVC
<b>TIM-PLUG-3</b>	3" tank plug	PVC
<b>TIM-PLUG-4</b>	4" tank plug	PVC
<b>TIM-PLUG-6</b>	6" tank plug	PVC



TIM-PLUG-4

## Tank Sight Gauges

Model Number	Type	Reads In	Length	Tank Used On
<b>TIM-H1.5-32</b>	Swing-arm	8ths of a tank	32"	ALEC work bench tanks
<b>TIM-H1.5-36</b>	Swing-arm	8ths of a tank	36"	120-gallon cube.
<b>TIM-D2-44</b>	Swing-arm	8ths of a tank	44"	275-gallon horizontal obround
<b>TIM-D2-48</b>	Swing-arm	8ths of a tank	48"	500-gallon horizontal round
<b>TIM-H2-60</b>	Swing-arm	8ths of a tank	60"	275-gallon vertical obround 500-gallon and larger cube tanks
<b>TIM-GG-44</b>	Float & string	gallons	44"	275-gallon horizontal obround
<b>TIM-GG-60</b>	Float & string	inches	60"	Any 64" H cube 275-gallon vertical obround 500-gallon vertical round
<b>TIM-GG-72</b>	Float & string	inches	72"	Tanks with 72" interior height



TIM-GG-60



TIM-H1.5-32



## Air & Water Connecting Hoses for Pumps & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4214-__*</b>	1/4"	1/4"(M) x 1/4"(M)	300	2, 3, 5, 10	1/4" Industrial Series Air Reels, "Thunder" pumps, 1/2" and 1" diaphragm pumps
<b>TIM-4216-2</b>	3/8"	3/8"(M) x 3/8"(M)	300	2	3/8" Challenger Series Air Reels, 3/8" Advantage Plus Air Reels, 3/8" Industrial Air Reels
<b>TIM-4216-2N</b>	3/8"	3/8"(M) x 3/8"-90° swivel (M)	300	2	3/8" Challenger Series Air Reels, 3/8" Advantage Plus Air Reels, 3/8" Industrial Air Reels
<b>TIM-4218-2N</b>	1/2"	1/2"(M) x 1/2"-90° swivel (M)	300	2	1/2" Advantage Plus Air Reels, 1/2" Industrial Air Reels
<b>TIM-4258-5</b>	1/2"	1/2"(M) x 1/2"(M)	300	5	4-1/4" Pumps
<b>TIM-4212-2N</b>	3/4"	3/4"(M) x 3/4"-90° swivel (M)	250	2	3/4" Industrial Series Double-Arm Air Reels

\*Add length of hose to the model number as the suffix. For example: TIM-4214-5 is a 1/4" I.D. hose with 1/4" (M) ends by 5' long.

## Air & Water Delivery Hoses for Consoles & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4204-35SG</b>	1/4"	1/4"(M) x 1/4"(M)	300	35SG (Includes spring guard)	Industrial Series Air Reels
<b>TIM-4214-15</b>	1/4"	1/4"(M) x 1/4"(M)	300	15	Lube Consoles
<b>TIM-4216-__*</b>	3/8"	3/8"(M) x 3/8"(M)	300	25, 35, 50, 65	Platinum, Industrial and Advantage Plus Series Air Reels
<b>TIM-4216-15</b>	3/8"	1/4"(M) x 1/4"(M)	300	15	Lube Consoles
<b>TIM-4208-__*</b>	1/2"	1/2"(M) x 1/2"(M)	300	50, 65	Advantage Plus and Industrial Series Air Reels
<b>TIM-4212-50SG</b>	3/4"	3/4"(M) x 3/4"(M)	250	50SG	Industrial Series Air Reels

\*Add length of hose to the model number as the suffix. For example: TIM-4204-35SG is a 1/4" I.D. hose with spring guard 1/4" (M) ends by 35' long.

## Oil Connecting Hoses for Pumps &amp; Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4406-2N</b>	3/8"	1/2"(M) x 3/8"-90° swivel (M)	2,500	2	Challenger Series Oil Reel
<b>TIM-4418-2N</b>	1/2"	1/2"(M) x 1/2" 90° swivel (M)	2,500	2	Advantage Plus, Heavy-Duty, and Extra Heavy-Duty Oil Reels
<b>TIM-4418-__*</b>	1/2"	1/2"(M) x 1/2" swivel (M)	2,500	4, 5, 6, 8	Advantage Plus, Heavy-Duty, and Extra Heavy-Duty Oil Reels and "Thunder" oil pumps
<b>TIM-4412-__*</b>	3/4"	3/4"(M) x 3/4"(M)	1,250	3, 5, 50	High Capacity Industrial Reels - fresh oil or evac
<b>TIM-4416-__*</b>	1"	1"(M) x 1"(M)	1,000	3, 5, 8, 10	High Capacity Industrial Reels - fresh oil or evac
<b>624601-4</b>	3/4"	3/4"(M) x 3/4"(M)	2,250	4	9:1 ratio oil pumps

\*Add length of hose to the model number as the suffix. For example: TIM-4418-5 is a 1/2" I.D. hose with 1/2" (M) ends by 5' long.

## Oil Delivery Hoses for Consoles &amp; Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4406-25</b>	3/8"	3/8"(M) x 1/2"(M)	2,500	25	Challenger Series Cabinet Oil Reels
<b>TIM-4418-__*</b>	1/2"	1/2"(M) x 1/2" swivel (M)	2,500	10, 12, 15, 16, 18, 20, 25, 30, 50, 65, 75	"Thunder" pumps, quick-lube consoles, Advantage Plus, Heavy-Duty & Extra Heavy-Duty Industrial Reels
<b>TIM-4412-__*</b>	3/4"	3/4"(M) x 3/4"(M)	1,250	30, 50	High Capacity Industrial Reels - fresh oil or evac
<b>TIM-4416-__*</b>	1"	1"(M) x 1"(M)	1,000	30, 50	High Capacity Industrial Reels - fresh oil or evac

\*Add length of hose to the model number as the suffix. For example: TIM-4418-10 is a 1/2" I.D. hose with 1/2" (M) ends by 10' long.

## Grease Connecting Hoses for Pumps & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4516-2N</b>	3/8"	3/8"(M) x 3/8"-90° swivel (M)	4,000	2	3/8" Industrial or Advantage Plus Grease Reels
<b>TIM-4516-__*</b>	3/8"	3/8"(M) x 3/8"(M)	4,000	2, 4, 8	ARO Grease Pumps, 3/8" Industrial or Advantage Grease Reels

\*Add length of hose to the model number as the suffix. For example: TIM-4516-8 is a 3/8" I.D. hose with 3/8" (M) ends by 8' long.

## Grease Delivery Hoses for Consoles & Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Available Lengths In Feet	For Use On
<b>TIM-4334-10</b>	1/4"	1/2"-27(F) x 1/2"-27(F)	5,000	10	Alemite or Lincoln Grease Pumps
<b>TIM-4517-14</b>	1/4"	1/8"(F) x 1/8"(M)	5,000	14	Quick Lubes
<b>TIM-4524-__*</b>	1/4"	1/8"(F) x 1/8"(F)	5,000	2, 6, 10, 12, 15, 20, 25, 30	Aro Grease Pumps
<b>TIM-4506-__*</b>	3/8"	3/8"(M) x 3/8"(M)	4,000	25, 30, 50, 65, 75	3/8" Industrial or Advantage Grease Reels

\*Add length of hose to the model number as the suffix. For example: TIM-4506-50 is a 3/8" I.D. hose with 3/8" (M) ends by 50' long.

## Gas &amp; Fuel Connecting Hoses for Pumps &amp; Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Used For
<b>TIM-4612-5</b>	3/4"	3/4"(M) x 3/4"(M)	300	High Capacity Industrial Reels in gasoline applications and ARO 1" diaphragm pumps. 5' long.
<b>TIM-4616-5</b>	1"	1"(M) x 1"(M)	300	High Capacity Industrial Reels in diesel fuel applications and ARO 1" diaphragm pumps. 5' long.

## Gas &amp; Fuel Delivery Hoses for Reels

Model Number	Hose ID	Thread Sizes	Maximum PSI	Used For
<b>TIM-4612-50</b>	3/4"	3/4"(M) x 3/4"(M)	300	High Capacity Industrial Reels in gasoline applications. 50' long.
<b>TIM-4616-50</b>	1"	1"(M) x 1"(M)	300	High Capacity Industrial Reels in diesel fuel applications. 50' long.

## AMERICAN LUBRICATION LIMITED WARRANTY

American Lubrication Equipment Corporation (ALEC) warrants to the original use purchaser for the original installation of the products depicted in this catalog:

### Products Manufactured by ALEC

ALEC, at its option, will repair or replace, free of charge, any product (excluding Advantage Plus and Challenger Series products) manufactured by ALEC that under normal use and service proves defective in material or workmanship, as determined by ALEC upon inspection within one year from date of purchase, two years from date of purchase if the product is a ESQ Series electric oil pump or three years from date of purchase if the product is an Electronic Digital Meter (excluding batteries) or Electronic Digital Metered Control Handle (excluding batteries), provided the product or part claimed to be defective is returned promptly to the ALEC facility or ALEC authorized service center with transportation charges prepaid, and is accompanied by original proof of purchase. This limited warranty does not cover failure of parts or components due to normal wear or damage or wear that in the judgement of ALEC results from misuse, abrasion, corrosion, negligence, accident, substitution of a non-ALEC part, faulty installation or tampering. If ALEC's inspection discloses no defect in material or workmanship, ALEC will notify the purchaser and, upon authorization by the purchaser, ALEC will repair or replace and return the product at ALEC's customary charges.

### Advantage Plus Products

ALEC will provide repair parts free of charge for any Advantage Plus product that under normal use and service proves defective in material or workmanship, as determined by ALEC upon inspection within five years from date of purchase, provided the part claimed to be defective is returned promptly to ALEC with transportation charges prepaid, and is accompanied by original proof of purchase.

During the first year, ALEC, at its option, will repair or replace, free of charge, any Advantage Plus product, that under normal use and service proves defective in material or workmanship, as determined by ALEC upon inspection within one year from date of purchase, provided the product or part claimed to be defective is returned promptly to ALEC or an ALEC authorized service center with transportation charges prepaid, and is accompanied by original proof of purchase. This limited warranty does not cover failure of parts or components due to normal wear or damage or wear that in the judgment of ALEC results from misuse, abrasion, corrosion, negligence, accident, substitution of a non-ALEC part, faulty installation or tampering. If ALEC's inspection discloses no defect in material or workmanship, ALEC will notify the purchaser and, upon authorization by the purchaser, ALEC will repair or replace and return the product at ALEC's customary charges.

The Advantage Plus Products 5 Year Limited Warranty does not cover routine maintenance, including but not limited to, normal user performed adjustments and maintenance of equipment, and the adjustment of any field adjustable packing nuts.

CONTINUED ...



## AMERICAN LUBRICATION LIMITED WARRANTY

### Challenger Series Products

ALEC will provide repair parts free of charge for any Challenger Series Reel products that under normal use and service proves defective in material or workmanship, as determined by ALEC upon inspection within two years from date of purchase, provided the part claimed to be defective is returned promptly to ALEC with transportation charges prepaid, and is accompanied by original proof of purchase.

This limited warranty does not cover failure of parts or components due to normal wear or damage or wear that in the judgment of ALEC results from misuse, abrasion, corrosion, negligence, accident, substitution of a non-ALEC part, faulty installation or tampering. If ALEC's inspection discloses no defect in material or workmanship, ALEC will notify the purchaser and, upon authorization by the purchaser, ALEC will repair or replace and return the part at ALEC's customary charges.

The Challenger Series Reel products two-year limited warranty does not cover routine maintenance, including but not limited to, normal user performed adjustments and maintenance of equipment

### Products Not Manufactured by ALEC

ALEC makes no warranty as to products, accessories or components not manufactured by ALEC. These are subject to the warranty, if any, of their manufacturer. ALEC will provide reasonable assistance to the purchaser in making such claims.

### Notice

The foregoing limited warranty supersedes, voids and is in lieu of any and all other warranties, expressed or implied. ALEC makes no warranty of merchantability or fitness for a particular purpose. ALEC's sole obligation and the original use purchaser's sole remedy is as stated above, and in no event shall ALEC be liable for any special, direct, indirect, incidental, consequential or other damages or expenses of any nature including, without limitation, loss of profits or production time incurred by the original use purchaser or any other party.

## ARO LUBRICATION EQUIPMENT WARRANTY

Ingersoll-Rand Fluid Products ("IRFP") warrants to the original use purchaser of the ARO® products depicted in this catalog that IRFP will repair or replace, free of charges, including return shipping costs within the Continental United States of America, any such product which under normal use and service proves defective in material and workmanship, as determined by IRFP inspection, within (A) 1 year from date of purchase of said products, other than the following, (B) 5 years from date of purchase of a Thunder Series Pump, (C) 5 years from date of purchase of a Diaphragm Pump, and (D) 5 years from date of purchase ARO® manufactured swivels, non-metered control handles, 4-1/4", 6", 8" pumps, drains, follower plates, tie downs, siphon tubes, drum covers, provided the claimed defective product, or part thereof, is promptly returned to the IRFP factory or IRFP Customer Service Center with transportation charges prepaid.

This warranty does not cover failure of parts or components due to normal wear or damage or wear which in the judgement of ARO® arises from misuse, abrasion, corrosion, negligence, accident, substitution of non-ARO parts, faulty installation or tampering.

If IRFP inspection discloses no defect in material or workmanship, repair or replacement and return will be made at customary charges.

Equipment not covered by IRFP warranty: Accessories or components of equipment sold by IRFP that are not manufactured by IRFP (such as switches, hoses, meters, etc.) are subject to the warranty, if any, of their manufacturer. IRFP will provide the purchaser with reasonable assistance in making such claims.

The foregoing warranty supersedes, voids and is in lieu of all or any other warranties, expressed or implied, and no warranty of merchantability or fitness for particular purpose is intended or made. IRFP's sole obligation and the original use purchaser's sole remedy is as stated above and in no event shall IRFP be liable for any special, direct, indirect, incidental, consequential or other damages or expenses of any nature including, without limitation, loss of profits or production time incurred by the original use purchaser or any other party.

## ARO AIR SYSTEMS COMPONENTS WARRANTY

Ingersoll-Rand Fluid Products ("IRFP") warrants to the original use purchaser of the ARO® Air Systems Components depicted in this catalog that IRFP will repair or replace, free of charges, including return shipping costs within the Continental United States of America, any such product which under normal use and service proves defective in material or workmanship, as determined by IRFP inspection, five years from date of purchase, provided the claimed defective product or part thereof, is promptly returned to the IRFP Service Repair Center or a factory-authorized service repair center, with transportation charges prepaid.

If IRFP inspection discloses no defect in material or workmanship, repair or replacement and return will be made at customary charges.

The foregoing warranty supersedes, voids and is in lieu of all or any other warranties, expressed or implied, and no warranty of merchantability or fitness for particular purpose is intended or made. IRFP's sole obligation and the original use purchaser's sole remedy is as stated above and in no event shall IRFP be liable for any special, direct, indirect, incidental, consequential or other damages or expenses of any nature including, without limitation, loss of profits or production time incurred by the original use purchaser or any other party.

## AMERICAN LUBRICATION POLICY

**Returns:** No returns will be accepted without prior written authorization from American Lubrication Equipment Corporation. All items to be returned must be in the original factory carton and must be in unused re-saleable condition with transportation charges prepaid. All returned goods will be subject to inspection by American Lubrication Equipment Corporation before credit is issued. We reserve the right to charge an additional handling fee or return items to the purchaser if products are found to be in unacceptable condition upon our inspection. Customer must supply a copy of our original invoice as proof of purchase.

**Stock Adjustment:** Stock adjustments will be made with prior written authorization. A list including quantities and model numbers of items to be returned must be faxed or mailed to American Lubrication Equipment Corporation. Only active part numbers will be considered and the products must have been purchased within the last 18 months. A 15% handling charge will be assessed. The 15% handling charge will be waived if a 2:1 offsetting order accompanies the original request for stock adjustment.

**Warranty:** Warranty claims will be handled in accordance with the written warranties found in the Ingersoll-Rand ARO Fluid Products catalog and the American Lubrication Equipment Corporation lubrication equipment and supplies catalog. Contact either American Lubrication Equipment Corporation or one of our authorized warranty service centers with warranty claims.

**Defective Item(s):** Prior written authorization is required in order to return items that are defective. Fax or mail your request for authorization for return to American Lubrication Equipment Corporation. If the returned item is found not to be defective, upon our inspection, the item will be returned at the customer's expense.

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