

# ARO<sup>®</sup>

## LUBRICATION EQUIPMENT

PUMPS AND ACCESSORIES



# ARO® Lubrication Equipment.

For over 85 years, the ARO® Fluid Products business of Ingersoll Rand® has developed relationships with more than 200 original equipment manufacturers and distributors, enabling us to better focus on the unique pumping needs of many industries. It is a strategic merger of our customers' application expertise, along with our decades-long legacy of designing and building outstanding piston and diaphragm pumps.

ARO® delivers unmatched dependability and productivity with a full range of lubrication products built to a global quality standard to keep all types of fluids moving efficiently.

ARO® offers a versatile range of piston and diaphragm pumps capable of meeting the specific needs of your applications. Available in multiple sizes and configurations with a broad selection of pressure ratios and displacement rates, our pumps can help unlock superior performance and increase production across a number of unique applications.

## Lubrication Equipment Warranty

ARO® lubrication equipment is built with the finest materials to deliver reliable products with extended durability. Our warranty is your assurance of a quality product.



## Features

- Piston pumps for grease — or for motor oil, gear oil, and transmission fluid
- No lubrication or complex controls required
- Digital / metered fluid control handles are precise and easy to use
- High-pressure grease control handles
- Full range of general lubrication fittings and accessories

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## Application advantages of ARO® lubrication pumps:



**Transfer & Supply:** ARO® lubrication pumps are designed to move high volumes of fluids in order to minimize time spent filling or emptying large containers.



**Lubrication:** ARO® lubrication pumps offer a variety of flow rates and pressures to meet your need in moving oil and grease to lubricate equipment and machinery.

## Used for:

- Material Transfer
- Vehicle Service
- Mining and Construction Equipment
- General Machinery



# ARO® Piston Pumps and Packages for Oil and Grease

ARO® lubrication pumps deliver unmatched industrial-strength performance and are sized to fit any container - large (275-gal/400-lb, 1040.9 L / 181.4 kg) to small (5-gal/35-lb, 18.9 L/15.9 kg).

They pump motor and gear oils, transmission fluid, and standard and industrial greases. Pumps are offered from 3:1 to 100:1 ratios in order to meet the requirements of any application - commercial vehicle servicing to lubricating heavy mining equipment.

## Saving You Time and Money

Our simple pump designs allow service by any owner or qualified technician.

### ► Reliable Performance:

- Patented design improves flow, reduces pulsation and extends service life
- Various size motors can produce the right pressure for any application

### ► Durability:

- ARO® stand behind its pumps with a 5-year warranty
- Stall-free motor is contained in a rugged housing

### ► Low Maintenance Time and Cost:

- Can service pumps in-line with no special tools required
- Fewer parts than comparable pumps mean easier servicing, reduced service time
- No air line lubrication required



3:1

5:1

Commercial

# Motor Oil, Gear Oil, Transmission Fluid

## Oil Pumps and Packages

|                                    | 3:1 Ratio      | 5:1 Ratio           |
|------------------------------------|----------------|---------------------|
| Lower Pump Material                | Carbon Steel   | Carbon Steel        |
| Air Motor Diameter                 | 2"             | 3"                  |
| Air Inlet Pressure Range psi (bar) | 0-150 (0-10.3) | 0-150 (0-10.3)      |
| Fluid Pressure Range psi (bar)     | 0-450 (0-31)   | 0 - 750 (0 - 51.7)) |
| Stroke Length                      | 3"             | 3"                  |
| Max.Recommended Cycles/Minute      | 125            | 120                 |
| Flow Rate gpm (lpm)                | 3.4 (12.87)    | 4.3 (16.27)         |
| Cycles Per Gallon (Liter)          | 37 (9.8)       | 28 (7.4)            |
| Air Inlet Size                     | 1/4" (F)       | 1/4" (F)            |
| Fluid Outlet Size                  | 1/2" (F)       | 1/2" (F)            |
| Fluid Inlet Size                   | 3/4" (F)       | 1 1/2" (F)          |
| Noise Level @ 100 psi – 124 cpm    | 80 db(A)       | 85 db(A)            |



3:1 Oil  
LM2203A-11-C



5:1 Oil  
LM2305A-11-B

| Model                              | Container size gal (L) |
|------------------------------------|------------------------|
| <b>3:1 PISTON PUMP</b>             |                        |
| LM2203A-11-C (-12-C = BSP Thread)  | Stub                   |
| LM2203A-31-C (-32-C = BSP Thread)  | 16 (60.6)              |
| LM2203A-41-C (-42-C = BSP Thread)  | 55 (208.2)             |
| LM2203A-51-C (-52-C = BSP Thread)  | 275 (1040.9)           |
| <b>5:1 PISTON PUMP</b>             |                        |
| LM2305A-11-B (-12-B = BSP Thread)  | Stub                   |
| LM2305A-31-B (-32-B = BSP Thread)  | 16 (60.6)              |
| LM2305A-41-B (-42-B = BSP Threads) | 55 (208.2)             |
| LM2305A-51-B (-52-B = BSP Threads) | 275 (1040.9)           |

## Piston Pump Packages

| Model                        | Description                           | Pump model   | Meter           | Control handle | Dolly    | Drum cover | Hose     | Valve |
|------------------------------|---------------------------------------|--------------|-----------------|----------------|----------|------------|----------|-------|
| <b>3:1 OIL PUMP PACKAGES</b> |                                       |              |                 |                |          |            |          |       |
| LP2100-1-B                   | 16-gal (60.6 L) portable pump package | LM2203A-31-C | 635190-1 (pint) | 635391-1       | 640058-2 | 94421      | 623501-6 | 67085 |
| LP2101-1-B                   | 16-gal (60.6 L) portable pump package | LM2203A-31-C | 635190-3 (L)    | 635391-1       | 640058-2 | 94421      | 623501-6 | 67085 |
| <b>5:1 OIL PUMP PACKAGES</b> |                                       |              |                 |                |          |            |          |       |
| LP3100-1-B                   | 16-gal (60.6 L) portable pump package | LM2305A-31-B | 635190-1 (pint) | 635391-1       | 640058-2 | 94421      | 623501-6 | N/A   |
| LP3101-1-B                   | 16-gal (60.6 L) portable pump package | LM2305A-31-B | 635190-3 (L)    | 635391-1       | 640058-2 | 94421      | 623501-6 | N/A   |



LP2100-1-B



LP3100-1-B

## Common Accessories

| Model                 | Description         |
|-----------------------|---------------------|
| 61113                 | Wall Mount Bracket  |
| 66073-1               | Air Line Connection |
| 67145-3-B (3:1 Ratio) | 2" Bung Adapters    |
| 67145-4-B (5:1 Ratio) | 2" Bung Adapters    |
| 637224                | LM2203A Service Kit |
| 637226                | LM2305A Service Kit |

1:1

9:1

Industrial

# Piston Pumps

## Industrial Oil Pumps

|                                    | 1:1 Ratio      | 9:1 Ratio       |
|------------------------------------|----------------|-----------------|
| Lower Pump Material                | Carbon Steel   | Carbon Steel    |
| Air Motor Diameter                 | 2"             | 4 ¼"            |
| Air Inlet Pressure Range psi (bar) | 0-150 (0-10.3) | 0-150 (0-10.3)  |
| Fluid Pressure Range psi (bar)     | 0-150 (0-10.3) | 0-1350 (0-93.1) |
| Stroke Length                      | 6"             | 4"              |
| Max. Recommended Cycles / Minute   | 75             | 75              |
| Flow Rate gpm (lpm)                | 9 (34)         | 3.9 (14.8)      |
| Cycles Per Gallon (Liter)          | 12.3 (3.2)     | 19.2 (5.0)      |
| Air Inlet Size                     | 1/4" (F)       | ½" (F)          |
| Fluid Outlet Size                  | 3/4" (F)       | ¾" (F)          |
| Fluid Inlet Size                   | Immersed       | Immersed        |
| Noise Level @ 60 psi – 40 cpm      | 77.8 db(A)     | 89.2 db(A)      |

## Heavy-duty Piston Pumps (for oil service)

| Model  | Packing Material (Upper/Lower) | Container size gal (L) |
|--|--------------------------------|------------------------|
| <b>PISTON PUMP 1:1 RATIO 2" DIAMETER AIR MOTOR (200 SERIES)</b>    |                                |                        |
| 612041-1   | Nitrile/Nitrile                | 55 (208.2)             |
| 612041-3   | PTFE/PTFE                      | 55 (208.2)             |
| 612042-1   | Nitrile/Nitrile                | 275 (1041)             |
| <b>PISTON PUMP 9:1 RATIO 4-1/4" DIAMETER AIR MOTOR (AF0409 SE)</b> |                                |                        |
| AF0409A13PFL1  | Polyurethane/UHMW-PE           | Stub                   |
| AF0409A43PFL1  | Polyurethane/UHMW-PE           | 16 (60.6)              |
| AF0409A53PFL1  | Polyurethane/UHMW-PE           | 55 (208.2)             |

## Common Accessories

| Model           | Description                      |
|-----------------|----------------------------------|
| 67445-1*        | Muffler Kit                      |
| 635040 (1:1)    | ARO-Stop Valve                   |
| 23644-400 (9:1) | ARO-Stop Valve                   |
| F35341-400      | Air Line Filter                  |
| 67442*          | Ball Valve Regulator             |
| 637489*         | Universal Air Motor Kit          |
| 637081          | Service Kit (612041-1, 612042-1) |
| 637083          | Service Kit (612041-3)           |
| 637486          | Service Kit (AF0409A)            |

\* Use with AF0409A

### 612041-1

1:1 ratio pump ideal for pumping motor oil, gear oil, and transmission fluid. This model fits a standard 55-gal (208.2 L) drum (including bung adaptor).



### 612042-1

1:1 ratio piston pumps are ideal for moving oils and fluids at high volumes. This model is designed for 275 obround tanks.



### AF0409

AF0409 Series pumps are designed with a 9:1 pump ratio, 4-1/4" (108 mm) air motor, and are ideal for pumping heavy oils over long distances.



# Piston Pump Accessories

| Model                     | Description  | For use with  |
|---------------------------|--|---|
| <b>5-GAL CONTAINERS</b>   |  |   |
| 65986                     | Siphon tube has 6' (1.8 m) long, 3/4" (19 mm) ID hose with 3/4" (1.9 cm) NPT (M) outlet; hose is neoprene over Thiokol and includes 91020-1 tube.  | Wall-mounted stub pumps                                 |
| <b>55-GAL CONTAINERS</b>  |  |   |
| 65986-1                   | Siphon tube has 6' (1.8 m) long, 3/4" (19 mm) ID hose with 3/4" (1.9 cm) NPT (M) outlet; hose is neoprene over Thiokol.  | Drum cover for closed drum w/ 2" (50.8 mm) bung opening |
| 61601                     | Speeds 55-gal (208.2 L) drum change-over. No need to handle pump. Includes 622651-06 hose, Y45-24-C adapter bushing, Y43-5-C street elbow, and 65109 (36" long, 914 mm) carbon steel suction tube; 3/4" (19 mm) NPT(F) fluid outlet. | Wall-mounted stub pumps                                 |
| 66779                     | For pumping from 55-gal (208.2 L) drum. PVC tube has foot valve for positive priming. Includes 76193 bung adapter, adjustable to approximately 35-1/2" (902 mm); 1" (25.4 mm) NPT (F) fluid outlet.                                  | Stub pumps and diaphragm pumps                          |
| 61409                     | For pumping from 55-gal (208.2 L) drum. 90° PVC siphon tube, 35-1/2" (902 mm) long with 2" bung adapter for 55-gal drums. Can easily be cut to desired length, on site; 1/2" (12.7 mm) NPT (F) outlet.                               | 1/2" diaphragm pumps and stub pumps                     |
| 91020-2                   | 1/2" (12.7 mm) galvanized suction tube for 55-gal (208.2 liter) containers; 36" long (914 mm).   |   |
| <b>275-GAL CONTAINERS</b> |  |   |
| 66779-2                   | For pumping from 275-gal (1040.9 L) tanks. PVC diaphragm tube has foot valve for positive priming. Includes 76193 bung adapter, adjustable to approximately 48-1/4" (1232 mm). 1" (25.4 mm) NPT (F) fluid outlet.                    | Stub pumps and pumps                                    |



65986



91020-1



61601



66779

# Piston Pump Accessories

## Fittings

| Model                                     | Hose size ID in (mm) | Hose length ft (m) | Hose material                       | Fluid inlet NPT (M) in (mm) | Fluid outlet (NPT) in (mm) | Used with                   |
|---|----------------------|--------------------|-------------------------------------|-----------------------------|----------------------------|-----------------------------|
| <b>SIPHON HOSE, CARBON STEEL FITTINGS</b> |                      |                    |                                     |                             |                            |                             |
| 622701-6                                  | 1" (25.4)            | 6' (1.8)           | Nylon tube with oil-resistant cover | 1" (25.4)                   | 1" (25.4)                  | Carbon steel siphon tube    |
| <b>STAINLESS STEEL FITTINGS</b>           |                      |                    |                                     |                             |                            |                             |
| 622702-6                                  | 1" (25.4)            | 6' (1.8)           | Nylon tube with oil-resistant cover | 1" (25.4)                   | 1" (25.4)                  | Stainless steel siphon tube |

## Inlet Material Filters

| Model  | Description   | For use with  |
|--------|---|---|
| 651830 | Filter element keeps foreign matter from entering lower pump end  | Adapts to 91020-1 or -2 pipe extension.   |
| 66480  | Filter and check valve assembly constructed of 316 stainless steel, assembly has 1" (25.4 mm) NPT (F) connections and 40-mesh screen; 4-3/4" (121 mm) long x 2-1/8" (54 mm) in diameter | Used with suction tubes when fluid is corrosive and viscosity requires a foot valve for positive priming. |



651830

66480

## Wall Mount Bracket

| Model | Description  | For use with  |
|-------|--|---|
| 61113 | 2" (50.8 mm) NPT (F) opening for bung-type pumps; bracket can slip over rim of open-head drum or be wall-mounted | 55-gal (208.1 L) bung-type pumps and AFX Series, LM Series and 61204X-X Pumps fitted with bung adapters |
| 66100 | Wall-mount bracket has removable mounting plate  | AFX Series, 4" (101.6 mm) stroke pumps  |
| 66101 | Wall-mount bracket has removable mounting plate  | AFX Series, 6" (152.4 mm) stroke pumps  |



61113

## Bung Adapters

| Model     | Description  | For use with                         |
|-----------|--|--------------------------------------|
| 60870     | 2" (50.8 mm) (M) for use with 2-1/8" (57.1 mm) siphon tube | 61204X-X, 1:1 ratio immersed pumps   |
| 67145-3-B | 2" (50.8 mm) (M)   | AFX Series, 9:1 ratio immersed pumps |
| 67145-4-B | 2" (50.8 mm) (M)   | LM Series, 3:1 oil pumps             |



67145-X



67145-X-B

### BUNG ADAPTER SEAL KITS

|         |  |                         |
|---------|--|-------------------------|
| 67088-3 | Water-tight seal kit includes 67145-3 bung adapter and 67088 seal kit  | LM Series 3:1 oil pumps |
| 67088-4 | Same as above, except includes 67145-4 bung adapter and 67088 seal kit | LM Series 5:1 oil pumps |



50:1

2"/3"

Commercial

# Grease Pumps and Packages

## 50:1 Commercial Grease Pumps

|                                    | 2" Motor<br>LM2250E-XX-B | 3" Motor<br>LM2350E-XX-B |
|------------------------------------|--------------------------|--------------------------|
| Lower Pump Material                | Carbon Steel             | Carbon Steel             |
| Air Motor Diameter                 | 2"                       | 3"                       |
| Air Inlet Pressure Range psi (bar) | 0-150 (0-10.3)           | 0-150 (0-10.3)           |
| Fluid Pressure Range psi (bar)     | 0-7500 (0-517.2)         | 0-7350 (0-506.8)         |
| Stroke Length                      | 3"                       | 3"                       |
| Max. Recommended Cycles/Minute     | 80                       | 135                      |
| Flow Rate lbs/min (kg/min)         | 2 (1)                    | 4 (2)                    |
| Cycles Per Gallon (Liter)          | 12.3 (3.2)               | 19.2 (5.0)               |
| Air Inlet Size                     | 1/4" (F)                 | 1/4" (F)                 |
| Fluid Outlet Size                  | 3/8" (F)                 | 3/8" (F)                 |
| Fluid Inlet Size                   | Immersed                 | Immersed                 |
| Noise Level @ 60 psi – 40 cpm      | 85 db(A)                 | 85 db(A)                 |

## Grease Pumps

| Model                                    | Container size<br>lb (kg) |
|--|---------------------------|
| <b>50:1 PISTON PUMP</b>                  |                           |
| <b>2" DIAMETER AIR MOTOR (3" STROKE)</b> |                           |
| LM2250E-21-B (-22 = BSP thread)          | 35 (15.8)                 |
| LM2250E-31-B (-32 = BSP thread)          | 120 (54.4)                |
| LM2250E-41-B (-42 = BSP thread)          | 400 (181.4)               |
| LM2250E-61-B (-61 = BSP thread)          | 60 (27.2)                 |
| <b>3" DIAMETER AIR MOTOR (3" STROKE)</b> |                           |
| LM2350E-21-B (-22-B = BSP thread)        | 35 (132.4)                |
| LM2350E-31-B (-32-B = BSP thread)        | 120 (454.2)               |
| LM2350E-41-B (-42-B = BSP thread)        | 400 (1514.2)              |
| LM2350E-61-B 4 (2)                       | 60 (227.1)                |

## Service Kits

|         | Kit No.  |
|---------|----------|
| LM2250E | 637332   |
| LM2350E | 637227-B |

## Grease Pump Packages

| Model                        | Size              | Pump model   | Control handle | Dolly         | Drum cover | Fluid Hose | Follower plate | Handle | Adapter | Z-Swivel |
|------------------------------|-------------------|--------------|----------------|---------------|------------|------------|----------------|--------|---------|----------|
| <b>2" DIAMETER AIR MOTOR</b> |                   |              |                |               |            |            |                |        |         |          |
| LP2001-1-B                   | 35-lb (15.8 kg)   | LM2250E-21-B | N/A            | N/A           | 94420      | N/A        | 640095-2-B     | 94334  | N/A     | N/A      |
| LP2002-1-B                   | 35-lb (15.8 kg)   | LM2250E-21-B | 636111         | N/A           | 94420      | 624201-10  | 640095-2-B     | 94334  | 76493   | 636077   |
| LP2003-1-B                   | 120-lb (54.4 kg)  | LM2250E-31-B | N/A            | N/A           | 94421      | N/A        | 640165         | N/A    | N/A     | N/A      |
| LP2004-1-B                   | 120-lb (54.4 kg)  | LM2250E-31-B | 636111         | N/A           | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| LP2006-1-B                   | 120-lb (54.4 kg)  | LM2250E-31-B | 636111         | 640058-2      | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| LP2007-1-B                   | 120-lb (54.4 kg)  | LM2250E-31-B | 636111         | 640062 (cart) | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| <b>3" DIAMETER AIR MOTOR</b> |                   |              |                |               |            |            |                |        |         |          |
| LP3001-1                     | 35-lb (15.8 kg)   | LM2350E-21-B | 636103         | N/A           | 94420      | 624201-10  | 640095-2-B     | 94334  | 76493   | 636077   |
| LP3002-1                     | 120-lb (54.4 kg)  | LM2350E-31-B | N/A            | N/A           | 94421      | 624401-4   | 640165         | N/A    | N/A     | N/A      |
| LP3003-1                     | 120-lb (54.4 kg)  | LM2350E-31-B | 636103         | 640057        | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| LP3004-1                     | 120-lb (54.4 kg)  | LM2350E-31-B | 636111         | 640058-2      | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| LP3005-1                     | 400-lb (181.4 kg) | LM2350E-41-B | N/A            | N/A           | 94422      | 624401-4   | N/A            | N/A    | N/A     | N/A      |
| LP3006-1                     | 120-lb (54.4 kg)  | LM2350E-31-B | 636103         | 640062 (cart) | 94421      | 624201-10  | 640165         | N/A    | 76493   | 636077   |
| LP3007-1                     | 60-lb (27.2 kg)   | LM2350E-61-B | 636111         | N/A           | 71740-1    | 624401-4   | N/A            | N/A    | N/A     | 636077   |
| LP3008-1                     | 35-lb (15.8 kg)   | LM2350E-21-B | N/A            | N/A           | 94420      | 624201-10  | 640095-2-B     | 94334  | 76493   | N/A      |
| LP3009-1                     | 400-lb (181.4 kg) | LM2350E-41-B | N/A            | N/A           | 94422      | 624401-4   | 640015-1       | N/A    | N/A     | N/A      |



50:1  
75:1  
100:1



# Grease Pumps and Packages

## 4-1/4" and 6" Air Motor Grease Pumps

|                                    | 50:1 Ratio              | 75:1 Ratio           | 100:1 Ratio           |
|------------------------------------|-------------------------|----------------------|-----------------------|
| Stroke (double acting)             | 4" (10.2 cm)            | 4" (10.2 cm)         | 6" (15.2 cm)          |
| Material Outlet                    | 1/2" NPT(F)             | 1/2" -14 NPT         | 1/2" NPT(F)           |
| Air Inlet (female)                 | 1/2" NPT(F)             | 1/2" -14 NPT         | 1/2" NPT(F)           |
| Air Inlet Pressure Range psi (bar) | 30 - 150 (2 - 10.3)     | 30 -100 (2 - 6.9)    | 30 - 100 (2 - 6.9)    |
| Fluid Pressure Range psi (bar)     | 1500 - 7500 (103 - 517) | 0 - 7500 (0 - 517)   | 3000-10000 (207- 690) |
| Max Delivery/Minute @ 75 cycles    | 5.7 lbs (2.59)          | 5.5 lbs/min (2.5 kg) | 5.7 lbs (2.59)        |
| Material Inlet                     | Immersed                | Immersed             | Immersed              |
| Noise Level @ 60 psi dBA           | 81.8                    | 81.8                 | 84.7                  |



AF0475

| Pump Model *  | Plunger Material | Upper Packings | Lower Packings    | Lower Pump Model | Packaging Service Kit |
|---|------------------|----------------|-------------------|------------------|-----------------------|
| <b>Container Suitability - 16 GAL / 120 LB Drum</b> |                  |                |                   |                  |                       |
| AF0450L43PKL1                                       | Carbon Steel     | Polyurethane   | Glass Filled PTFE | -                | 65130                 |
| AF0475L43PBL1                                       | Carbon Steel     | Polyurethane   | Buna "N"          | -                | 637512                |
| AF060BL43PKL1**                                     | Carbon Steel     | Polyurethane   | Glass Filled PTFE | -                | 65130                 |
| <b>Container Suitability - 55 GAL / 400 LB Drum</b> |                  |                |                   |                  |                       |
| AF0450L53PKL1                                       | Carbon Steel     | Polyurethane   | Glass Filled PTFE | -                | 65130                 |
| AF0475L53PBL1                                       | Carbon Steel     | Polyurethane   | Buna "N"          | -                | 637512                |
| AF060BL53PKL1**                                     | Carbon Steel     | Polyurethane   | Glass Filled PTFE | -                | 65130                 |

\* Add "-1" to Model No. for Ball Valve Regulator

\*\* WARNING: These 100:1 pumps deliver pressures up to 10,000 psi and can only be used in permanently installed systems where the pump is connected directly to piping with the proper rating for the application.

## Grease Pump Packages

| Model No.         | Package Type         | Pump Model      | Drum Cover | Bung Adapter | Material Hose | Air Hose | Ball Valve Regulator | Follower |
|-------------------|----------------------|-----------------|------------|--------------|---------------|----------|----------------------|----------|
| DC0450L53PKL1000  | 55 Gallon Drum Cover | AF0450L53PKL1   | 60898      | 4148         | 624401-8      | 621501-5 | -                    | -        |
| DM0450L53PKL1000  | 55 Gallon Drum Mount | AF0450L53PKL1   | -          | 4148         | 624401-8      | 621501-5 | -                    | -        |
| DC0475L53PBL1C11  | 55 Gallon Drum Cover | AF0475L53PBL1   | 71060-1    | 4148         | -             | -        | 67442                | 640015-2 |
| DM0475L53PBL1C11  | 55 Gallon Drum Mount | AF0475L53PBL1   | -          | 4148         | -             | -        | 67442                | 640015-2 |
| DC060BL43PKL1C11* | 16 Gallon Drum Cover | AF060BL43PKL1-1 | 66715      | -            | -             | -        | -                    | 640152-1 |
| DC060BL53PKL1C11* | 55 Gallon Drum Cover | AF060BL53PKL1-1 | 71060-1    | 60870        | -             | -        | -                    | 640015-5 |



DCX Series Drum Cover



DMX Series Drum Mount

## High-pressure Wash and Tire-Fill Pump Package

## High-power cleaning solutions

## Perfect for cleaning:

- Cars and trucks
- Engines
- Construction equipment
- Aircraft
- Farm equipment
- Plant structures
- Railroad equipment
- Fleet vehicles

## With the application of:

- Degreasers
- Detergents
- Cleaning solutions
- Water
- Metal brighteners
- Aluminum brighteners



WPO409C81BBW2000

## Wash Pumps

|                                    | 9:1 Ratio       |
|------------------------------------|-----------------|
| Lower Pump Material                | Stainless Steel |
| Air Motor Diameter                 | 4 1/4"          |
| Air Inlet Pressure Range psi (bar) | 0-150 (0-10.3)  |
| Fluid Pressure Range psi (bar)     | 0-1500 (0-103)  |
| Stroke Length                      | 4"              |
| Max. Recommended Cycles /          | 60              |
| Flow Rate gpm (lpm)                | 2.9 (10.8)      |
| Cycles Per Gallon (Liter)          | 21 (5.5)        |
| Air Inlet Size                     | 1/2" (F)        |
| Fluid Outlet Size                  | 3/4" (F)        |
| Fluid Inlet Size                   | Barbed          |
| Noise Level @ 60 psi – 40 cpm      | 89.2 db(A)      |

| Model   | Packings type / material |        |
|---|--------------------------|--------|
|   | upper                    | lower  |
| <b>BASIC PUMPS</b>                                |                          |        |
| <b>STUB 4-1/4" DIAMETER AIR MOTOR / 4" STROKE</b> |                          |        |
| AF0409C81BBW2                                     | Buna N                   | Buna N |

| Model  | Description   |
|--|---|
| <b>SPRAY WASH PUMP PACKAGE - 55 GALLON CONTAINER</b> |   |
| WPO409C81BBW2000                                     | 4-1/4" (107.9 mm) High-pressure wall-mounted spray package includes AF0409C81BBW2 pump, 61113 wall bracket, 61139-1 55-gal suction tube assembly, 622427-40 material hose (40' / 12.2 m), 641523 control handle, 61133 spray wand, TP6250-18 spray tip and L26241-010 Air Line lubricator |

## Dollies, Hand Trucks

| Model              | Description   |
|--------------------|---|
| <b>DOLLIES</b>     |   |
| <b>16-GAL DRUM</b> |   |
| 640057             | Platform-type dolly has four swivel casters and three drum clamps; for use with steel or fiber drums      |
| 640058-2           | Band-type dolly has four rubber-wheeled casters and screw clamp; for use with steel or fiber drums        |
| <b>HAND TRUCKS</b> |   |
| <b>16-GAL DRUM</b> |   |
| 640062             | Two-wheel truck has clamp rod and two base supports to hold drum; wheels are rubber                       |
| 640149             | Three-wheel truck includes hinged handle, swivel-type front wheel, and two 6" (152 mm) rubber rear wheels |



640057



640058-2



640062



640149

# Accessories

## Drum Covers

| Model                       | Description  | For use with  |
|-----------------------------|--|---|
| <b>5 GAL / 35-LB PAIL</b>   |  |   |
| 94420                       | Has 2" (50.8 mm) NPT (F) bung opening and three hold-down screws (fits 10.23" – 12", 259.8 mm –  | LM Series 5-gal (18.9 L) bung pumps 304.8 mm OD drums)                        |
| <b>16 GAL / 120-LB DRUM</b> |  |   |
| 66492                       | Has pump opening, mounting holes, and tie-down brackets; order tie-down rods separately (fits 12.75" – 15", 323.8 mm – 381 mm OD Drums)      | Models 662402 and 662409  |
| 94421                       | Has 2" (50.8 mm) NPT (F) bung opening and three hold-down screws (fits 13-1/8" – 14-7/8", 333.3 mm – 377.8 mm OD drums)                      | LM Series 16-gal / 120 lb (60.6 L / 54.4 kg) bung pumps                       |
| <b>55 GAL / 400-LB DRUM</b> |  |   |
| 71060-1                     | Has 2" (50.8 mm) NPT (F) bung opening and tie-down brackets; order tie-down rods separately (fits 20" – 24-5/8", 508 mm – 625.5 mm OD drums) | AFX Series and 61204X-X Pumps, 55-gal / 400-lb (208.1 L / 181.4 kg) bung-type |
| 94422                       | Has 2" (50.8 mm) NPT (F) bung opening and three hold-down screws; bung pumps (fits 21-7/8" – 23-5/8", 555.6 mm – 600.1 mm OD drums)          | 55-gal (208.1 L) drum cover models LM2250E-41-B and LM2350E-41-B              |



94420



94421



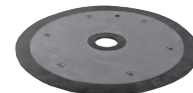
71060-1



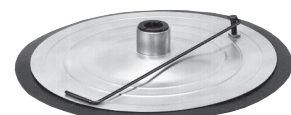
94422

## Follower Plates

| MODEL   | Wiper seal MATERIAL | OD of pump tube to be fitted IN (MM) | FOR USE WITH               |
|---|---------------------|--------------------------------------|----------------------------|
| <b>35-LB TAPERED PAIL (FITS 10" – 11" ID DRUMS)</b> |                     |                                      |                            |
| 640095-1-B  | Rubber              | 1" (25)                              | LM Series 60:1             |
| 640095-2-B  | Rubber              | 1-1/2" (38)                          | LM2250E-21-B, LM2350E-21-B |
| <b>120-LB DRUM (FITS 13" – 14" ID DRUMS)</b>        |                     |                                      |                            |
| 640027  | Buna-N              | 2" (51)                              | Hand pumps                 |
| 640152  | Buna-N              | 1-7/8" (48)                          | AFX Series, 50:1           |
| 640152-1  | Buna-N              | 2-1/8" (54)                          | AFX Series, 100:1          |
| 640165  | Buna-N              | 1-1/2" (38)                          | LM2250E-31-B, LM2350E-31-B |
| <b>400-LB DRUM (FITS 20" – 23" ID DRUMS)</b>        |                     |                                      |                            |
| 640015-2  | Buna-N              | 1-7/8" (48)                          | AFX Series, 50:1           |
| 640015-5  | Buna-N              | 2-1/8" (54)                          | AFX Series, 100:1          |
| 640015-1  | Buna-N              | 1-1/2" (38)                          | LM2250E-41-B, LM2350E-41-B |



640095-2-B



640015-1

# Accessories

## Bung Adapters

| Model                         | Description  | For use with                        |
|-------------------------------|--|-------------------------------------|
| <b>BUNG ADAPTERS</b>          |  |                                     |
| 4148                          | 2" (50.8 mm) (M) for use with 1-7/8" (47.6 mm) siphon tube | AFX Series, 50:1 ratio grease pumps |
| 67145-2                       | 2" (50.8 mm) (M)   | LM, 50:1 grease pumps               |
| <b>BUNG ADAPTER SEAL KITS</b> |  |                                     |
| 67088                         | Water-tight seal for use outdoors                          | LM Series                           |



67145-X

## Cover Tie-down Rods

| Model                       | Description   | For use with   |
|-----------------------------|---|--|
| <b>16-GAL / 120-LB DRUM</b> |   |  |
| 640164                      | Tie-down bracket kit fixes / holds down drum cover. Includes brackets, rods, mounting hardware. Use with 94421 Cover. | LM Series pumps.   |
| 640091                      | Set of two tie-down rods and mounting brackets. Use with 66492 Cover.   | AFX Series and 61204X-X Pumps, 16-gal / 120-lb (60.6 L / 54.4 kg) drum covers                        |
| <b>55-GAL / 400-LB DRUM</b> |   |  |
| 71027-1                     | Set of two tie-down rods and mounting brackets. Use with 71060 cover.   | LM Series, also AFX Series and 61204X-X Pumps<br>55-gal / 400-lb<br>(208.1 L / 181.4 kg) drum covers |



640164

640091

## Pump Lifts

| Model                   | Description   | For use with             |
|-------------------------|---|--------------------------|
| <b>SINGLE-POST LIFT</b> |   |                          |
| 640067                  | Single-acting cylinder for easy 55-gal / 400-lb (208.1 L / 181.4 kg) drum change-over. Requires 71060-1 drum cover. Extended height 92" (2.3 mm). | AFX Series,<br>LM Series |



640067

3/8"-2"

**PRO  
Series**

# Diaphragm Pumps

3/8" – 2" (9.5 MM – 50.8 MM) FLUID PORTS

## Why ARO® diaphragm pumps?

Our diaphragm pumps are ideal for pumping oil or other light fluids such as antifreeze, water, windshield fluid, fuel (See UL 79 Approved Units), solvents, transmission fluid, and waste oil. Fluid ports for Ingersoll Rand / ARO® diaphragm pumps range in size from 3/8" to 2" (9.5 to 51 mm) to meet the requirements of any application.

- ✔ Safety — Bolted fasteners prevent fluid leaks harmful to workers and the environment
- ✔ Reliability — Unbalanced valve design eliminates valve centering and pump stall-outs, even under low air inlet pressure
- ✔ Flexibility — Variety of body materials allow you to pump different fluids
- ✔ Commitment — Ingersoll Rand / ARO® diaphragm pumps come with a five-year warranty

### 1 Bolted construction for safe reliability and ease of assembly

All Ingersoll Rand / ARO® diaphragm pumps use bolted construction that process professionals demand. Ingersoll Rand / ARO® non-metallic diaphragm pumps also utilize fasteners that are constructed of 300 Series stainless steel for maximum chemical resistance.

- ✔ Bolted is safer — Bolted construction reduces the risk of spills and environmental contamination, and the attendant, mandatory reports to regulatory agencies that spills can create.
- ✔ Bolted is reliable — Bolted construction withstands the heavy loading that diaphragm pumps are subjected to, without concerns about breakage or loosening.
- ✔ Bolted is easier to assemble — Our bolted design allows for easy positioning and alignment of parts during reassembly. This is a significant advantage over band-clamp style pump fasteners, which are difficult to align and hold together during reassembly.
- ✔ Bolted is less expensive — This design uses standard bolts that cost significantly less to replace. Non-standard fastening devices (such as band clamps) are considered wear parts and are more expensive to replace.

### 2 Positive priming provides instant start-ups

Check valves are located close to the diaphragm chambers, ensuring a positive prime.

### 3 Ideal for abrasion and solids-handling

Because Ingersoll Rand / ARO® diaphragm pumps do not use the rotating, sliding seals found in rotary and centrifugal pumps, they're used by more process engineers to handle tough abrasion applications.

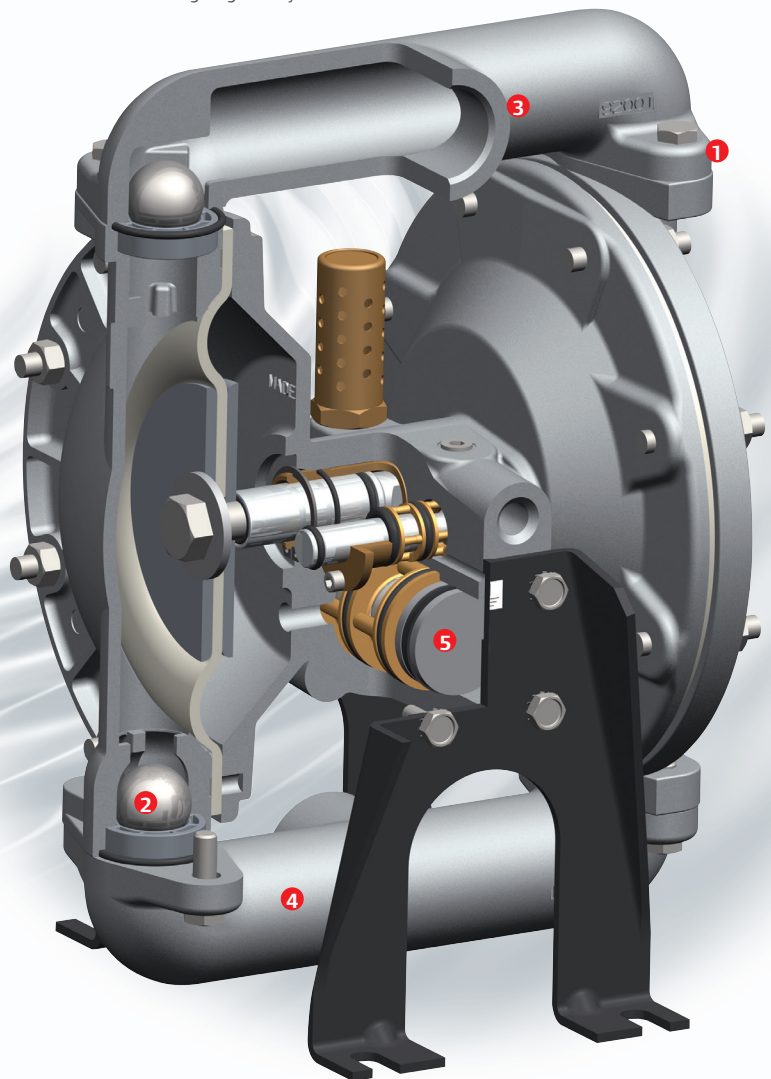
### 4 Broad material selection

Ingersoll Rand / ARO® offers a wide selection of materials, allowing your choice of the best possible wetted and non-wetted materials suited to your application.

### 5 Ingersoll Rand / ARO® patented unbalanced air valve

Our unbalanced air valve design makes all Ingersoll Rand / ARO® diaphragm pumps unstickable. Because the unbalanced valve cannot settle in a neutral position when the pump is shut down, it can't become stuck, requiring the operator to hammer on the pump in order to start up again.

- ✔ Eliminates stalling
- ✔ Uses significantly less power than competition
- ✔ Does not require lubrication
- ✔ Forgiving in dirty air



## Pro-Series Diaphragm Pumps

| Model               | Body materials (wetted) | Diaphragm / ball material | Air inlet NPT (F) in (mm) | Fluid inlet / outlet material in (mm) | Max flow gpm l/m | Compatible fluids  | Replaces model |
|---------------------|-------------------------|---------------------------|---------------------------|---------------------------------------|------------------|--|----------------|
| <b>3/8" PORTS</b>   |                         |                           |                           |                                       |                  |  |                |
| PD03P-ARS-PTT       | Polypropylene           | PTFE                      | 1/4" (6.3)                | 3/8" (9.5)                            | 10.6 (40.1)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | New            |
| PD03P-ARS-PCC       | Polypropylene           | Hytrel                    | 1/4" (6.3)                | 3/8" (9.5)                            | 10.6 (40.1)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | New            |
| PD03P-AES-DTT       | Acetal (groundable)     | PTFE                      | 1/4" (6.3)                | 3/8" (9.5)                            | 10.6 (40.1)      | Solvents   | New            |
| PD03P-AES-DCC       | Acetal (groundable)     | Hytrel                    | 1/4" (6.3)                | 3/8" (9.5)                            | 10.6 (40.1)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | New            |
| <b>1/2" PORTS</b>   |                         |                           |                           |                                       |                  |  |                |
| PD05P-ARS-PTT-B     | Polypropylene           | PTFE                      | 1/4" (6.3)                | 1/2" (12.7)                           | 14.4 (54.5)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | 66605J-344     |
| PD05P-ARS-PCC-B     | Polypropylene           | Hytrel                    | 1/4" (6.3)                | 1/2" (12.7)                           | 14.4 (54.5)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | 66605J-322     |
| PD05P-ARS-PAA-B     | Polypropylene           | Santoprene                | 1/4" (6.3)                | 1/2" (12.7)                           | 14.4 (54.5)      | Windshield fluid, antifreeze   | 66605J-388     |
| PD05P-AES-DTT-B     | Acetal                  | PTFE                      | 1/4" (6.3)                | 1/2" (12.7)                           | 14.4 (54.5)      | Solvents   | 666056-6A4     |
| PD05P-AES-DCC-B     | Acetal                  | Hytrel                    | 1/4" (6.3)                | 1/2" (12.7)                           | 14.4 (54.5)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           | 66605H-622     |
| <b>1" PORTS</b>     |                         |                           |                           |                                       |                  |  |                |
| 666100-344-C        | Aluminum                | PTFE                      | 1/4" (6.3)                | 1" (25.4)                             | 35 (132.5)       | Windshield fluid, motor / gear oil, transmission fluid, antifreeze, solvents |                |
| 666100-3C9-C        | Aluminum                | Hytrel                    | 1/4" (6.3)                | 1" (25.4)                             | 35 (132.5)       | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           |                |
| 666100-322-C        | Aluminum                | Buna                      | 1/4" (6.3)                | 1" (25.4)                             | 35 (132.5)       | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           |                |
| <b>1-1/2" PORTS</b> |                         |                           |                           |                                       |                  |  |                |
| 666150-362-C        | Aluminum                | Nitrile / Acetal          | 1/2" (12.7)               | 1-1/2" (38.1)                         | 90 (340.7)       | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           |                |
| <b>2" PORTS</b>     |                         |                           |                           |                                       |                  |  |                |
| 666250-9C9-C        | Aluminum                | Hytrel                    | 3/4" (19.1)               | 2" (50.8)                             | 172 (651.1)      | Windshield fluid, motor / gear oil, transmission fluid, antifreeze           |                |

## Diaphragm Pumps

## Pro-Series Specialty Application Diaphragm Pumps

| Model               | Body materials (wetted) | Diaphragm / ball material | Air inlet NPT (F) in (mm) | Fluid inlet / outlet material in (mm) | Max flow gpm (L/min) | Compatible fluids     |
|---------------------|-------------------------|---------------------------|---------------------------|---------------------------------------|----------------------|-----------------------|
| <b>1/2" PORTS</b>   |                         |                           |                           |                                       |                      |                       |
| 670042              | Aluminum                | Viton / Acetal            | 1/4" (6.3 mm)             | 1/4" (6) / 1/2" (13)                  | 12 (45.4)            | Fuel (UL 79 approved) |
| <b>1" PORTS</b>     |                         |                           |                           |                                       |                      |                       |
| 650717-C            | Aluminum                | Viton / Acetal            | 1/4" (6.3 mm)             | 1" / 1" (25.4 mm)                     | 29 (109.8)           | Fuel (UL 79 approved) |
| <b>1-1/2" PORTS</b> |                         |                           |                           |                                       |                      |                       |
| 650718-C            | Aluminum                | Viton / Acetal            | 1/2" (127 mm)             | 1-1/2" (38.1 mm)                      | 75 (283.9)           | Fuel (UL 79 approved) |
| <b>2" PORTS</b>     |                         |                           |                           |                                       |                      |                       |
| 650719-C            | Aluminum                | Viton / Acetal            | 3/4" (19.1 mm)            | 2" (50.8 mm)                          | 105 (397.5)          | Fuel (UL 79 approved) |

| Model             | Application                         | Manifold material | Diaphragm, O-ring material | Air inlet NPT / F in (mm) | Fluid outlet NPT / F in (mm) | Max gpm (L/min) | Package includes   |
|-------------------|-------------------------------------|-------------------|----------------------------|---------------------------|------------------------------|-----------------|--|
| <b>1/2" PORTS</b> |                                     |                   |                            |                           |                              |                 |  |
| 612999-5          | Waste oil evacuation                | Polypropylene     | Nitrile                    | 1/4" (6)                  | 1/2" (13)                    | 11 (42)         | Wall mount, inlet and outlet fluid hoses                                       |
| 612999-6          | Waste oil evacuation                | Polypropylene     | Nitrile                    | 1/4" (6)                  | 1/2" (13)                    | 11 (42)         | Hanging bracket and suction hose   |
| <b>1" PORTS</b>   |                                     |                   |                            |                           |                              |                 |  |
| 650715-C          | 50 / 50 mix of antifreeze and water | Aluminum          | Nitrile                    | 1/4" (6)                  | 1" (25.4)                    | 35 (133)        | Pump only  |
| 612999-3          | 50 / 50 mix of antifreeze and water | Aluminum          | Nitrile                    | 1/4" (6)                  | 1" (25.4)                    | 35 (133)        | Wall mount, siphon tubes, material hoses                                       |
| 612999-4          | Waste oil evacuation                | Aluminum          | Nitrile                    | 1/4" (6)                  | 1" (25.4)                    | 35 (133)        | Wall mount, inlet and outlet fluid hoses                                       |
| 613201-2-C        | Calcium chloride tire filling       | Aluminum          | Neoprene                   | 1/4" (6)                  | 1" (25.4)                    | 35 (133)        | Inlet and outlet hoses, strainer, 8' suction hose, control handle, check valve |



### 650715-C Fuel AntiFreeze/Water Blending Pump (1", 25.4 mm NPTF Outlet)

This 1:1 ratio pump has dual inlets to allow simultaneous pumping and blending of antifreeze and water.



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

Designed for the purpose of evacuating and filling tires with calcium chloride ballast solution. Package includes a 666100-441-C, 1" (25.4 mm) port diaphragm pump. Aluminum construction with neoprene diaphragms and PTFE checks for compatibility with corrosive calcium chloride and 60154 hose / strainer / gun assembly. Also includes check valve and all required clamps and related hardware.



### 650717-C U.L. approved Fuel Pump

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 and kerosene.



# Diaphragm Pumps

## Pro-Series Drum Diaphragm Pumps

### Drum Pumps

- ARO® Drum Pumps are available in three body materials for optimum fluid compatibility: choose from aluminum, stainless steel or polypropylene body construction.

### Drum Pump Packages

- Package Components Factory-Matched – ARO® Drum Pump package components contain pre-specified, matching materials of construction for complete fluid compatibility

Drum Pump Packages can be ordered in 3 styles:

- Basic: Pump, bung adapter, air safety shut-off, siphon tube, weather seal, and base
- Complete / Transfer: basic pump plus fluid hose or fluid hose with non-drip nozzle
- Complete / Dispensing: basic pump plus foot valve, hose and dispensing nozzle



### Pump Features

- 11-gpm (13.4 l/m) flow capability: drum pumps offer plenty of capacity to satisfy a broad range of transfer application volume demands
- Stall-free operation: ARO® diaphragm drum pumps feature a patented unbalanced air valve design that avoids stall-out, even under low air-inlet pressures
- Bolted construction: ARO® diaphragm drum pumps utilize bolted fasteners for leak-tight integrity
- 5-year warranty

| Ratio   | Max flow<br>gpm (L/min) | Displacement<br>per cycle<br>gal (L) | Air inlet<br>NPT / F<br>in (mm) | Fluid<br>inlet<br>NPT             | Fluid<br>outlet<br>NPT / F | Max<br>operating<br>pressure<br>psi (bar) | Suspended<br>solids max<br>diameter<br>in (mm) | Shipping<br>weight<br>lb (kg)   |
|---|-------------------------|--------------------------------------|---------------------------------|-----------------------------------|----------------------------|---|--|---|
| <b>1:1 RATIO DRUM PUMP PERFORMANCE SPECIFICATIONS</b> |                         |                                      |                                 |                                   |                            |   |  |   |
| 1:1   | 11 (41.6)               | .039 (.15)                           | 1/4 (18)                        | Siphon<br>tube for<br>55-gal Drum | 1/2" - 14                  | 100 (6.8)                                 | 3/32" (2.4)                                    | 22 (10) Polypropylene, basic package<br>26 (11.8) Aluminum, basic package<br>36 (16.3) Stainless, basic package |

| Model          | Pump housing<br>and seats | Pump dia.<br>and balls | Lock out<br>valve<br>(P/N 104253-2) | Foot<br>valve | 10' (3.0 m)<br>hose<br>ASM | Dispense<br>valve | Fluid<br>service                 |
|----------------|---------------------------|------------------------|-------------------------------------|---------------|----------------------------|-------------------|----------------------------------|
| DAB05-PPTT-2-A | Polypropylene             | PTFE                   | X                                   | -             | -                          | -                 | Some Acids & Caustics*           |
| DAB05-PPCC-2-A | Polypropylene             | Hytrel                 | X                                   | -             | -                          | -                 | Oil                              |
| DAB05-PPUU-2-A | Polypropylene             | Polyurethane           | X                                   | -             | -                          | -                 | Oil                              |
| DAB05-PPAA-2-A | Polypropylene             | Santoprene             | X                                   | -             | -                          | -                 | Some Mild Acids / Mild Caustics* |
| DAB05-PPCC-2-N | Polypropylene             | Hytrel                 | X                                   | -             | Nitrile                    | -                 | Oil                              |
| DAB05-PPCC-B-M | Polypropylene             | Hytrel                 | X                                   | X             | Nitrile                    | No-drip           | Oil                              |
| DAB05-PPAA-2-B | Polypropylene             | Santoprene             | X                                   | -             | EPDM                       | -                 | Some Mild Acids / Mild Caustics* |
| DAB05-PPUU-2-C | Polypropylene             | Polyurethane           | X                                   | -             | Vinyl                      | -                 | Oil                              |
| DAB05-PPCC-B-J | Polypropylene             | Hytrel                 | X                                   | X             | Reinforced Nitrile         | X                 | Oil                              |
| DAB05-PPAA-B-K | Polypropylene             | Santoprene             | X                                   | X             | EPDM                       | X                 | Some Mild Acids / Mild Caustics* |
| DAB05-SSTT-2-A | Stainless Steel           | PTFE                   | X                                   | -             | -                          | -                 | Solvent                          |
| DAB05-ASTT-2-A | Alum / SS                 | PTFE                   | X                                   | -             | -                          | -                 | Solvent                          |
| DAB05-APCC-2-A | Alum / Poly               | Hytrel                 | X                                   | -             | -                          | -                 | Oil / Service Fluids             |
| DAB05-APCC-2-O | Alum / Poly               | Hytrel                 | X                                   | -             | Nitrile                    | -                 | Oil / Service Fluids             |
| DAB05-APCC-B-P | Alum / Poly               | Hytrel                 | X                                   | X             | Nitrile                    | No-drip           | Oil / Service Fluids             |
| DAB05-APCC-B-D | Alum / Poly               | Hytrel                 | X                                   | X             | -                          | X                 | Oil / Service Fluids             |
| DAB05-APCC-B-L | Alum / Poly               | Hytrel                 | X                                   | X             | Reinforced Nitrile         | X                 | Oil / Service Fluids             |
| DAB05-ASAA-2-A | Alum / SS                 | Santoprene             | X                                   | -             | -                          | -                 | Water / Antifreeze               |

\*Check compatibility for suitability in service with material(s) being pumped

# Diaphragm Pump Accessories

## Hose

1/2" (12.7 mm) ID hose comes in 10' (3.0 m) lengths.

| Model     | Material | For use with  | Fittings end / end   | Dispensing nozzle used with (order separately) |
|-----------|----------|---------------|--|--|
| 621517-10 | Nitrile  | Polypropylene | Cam / bare   | N/A  |
| 621516-10 | Nitrile  | Polypropylene | Cam / brass<br>1/4"-18 (6.3 mm) NPT male                       | 635129   |
| 621523-10 | Nitrile  | Polypropylene | Cam / non-drip nozzle  | N/A  |
| 621515-10 | EPDM     | Polypropylene | Cam / bare   | N/A  |
| 621519-10 | Vinyl    | Polypropylene | Cam / bare   | N/A  |
| 621514-10 | EPDM     | Polypropylene | Cam / 1" (25.4) NPT  | 95199  |
| 622514-10 | Nylon    | Polypropylene | 1/2" (12.7 mm) NPT /<br>1/2" (12.7 mm) NPT 316 stainless steel |  |
| 621518-10 | Nitrile  | Aluminum      | Cam / bare   | N/A  |
| 621520-10 | Nitrile  | Aluminum      | Cam / brass<br>1/4"-18 (6.3 mm) NPTF                           | 635129   |
| 621524-10 | Nitrile  | Aluminum      | Cam / non-drip nozzle  | N/A  |



621514-10, 95200, 95199  
Hose, swivel, and  
dispensing nozzle



635129

621516-10

Hose and dispensing bibb

Note: Hose requires 95189 to adapt to 1/2" port.

## Fluid Dispensing Nozzles

| Model  | Description  |
|--------|--|
| 95199  | Composite Nozzle High-flow nozzle works like gasoline nozzle; features tough composite (polypropylene) construction for caustic service  |
| 95200  | Swivel 1" (25.4 mm) (M) X 1" (25.4) NPT (F) Polypropylene hose swivel attaches between hose and dispensing nozzle and allows operator to rotate freely; use with 95199                   |
| 77617  | Oil Tapper Fitting Plated carbon steel 1/2"-14 (12.7 mm) NPTF x 3/8"-18 (9.5 mm) NPTF -1; used to attach 95183 oil tapper to 1/2" aluminum pump  |
| 635129 | Bibb with Trigger 1/4" (6.3 mm) NPT(F) inlet, zinc die casting with brass, and nitrile seals for water or oil service; radiator-type bibb has 1/4" (6.3 mm) fluid inlet and non-drip tip |



621523-10  
Hose and non-drip nozzle

## Foot Valves

Recommended for use with dispensing nozzle. Assembly includes housing, ball check, and O-ring.

| Model  | Description   |
|--------|---|
| 637336 | Polypropylene with Viton O-ring and ball. Use with 67231                |
| 637337 | Stainless steel with Viton O-ring and ball. Use with 67231-6 or 67231-7 |



637336  
Foot valve

## Drum Bung Adapter Kits

Kit contains base, bung adapter, bung seal, siphon tube, weather seal, and hardware for 55-gallon (208.1 L) drums.

| Model   | Base material   | Tube material   | Weather seal | Base seal |
|---------|-----------------|-----------------|--------------|-----------|
| 67231   | Polypropylene   | Polypropylene   | UHMW PE      | Viton     |
| 67231-6 | Aluminum        | Stainless Steel | Viton        | Viton     |
| 67231-7 | Stainless Steel | Stainless Steel | Viton        | Viton     |

Note: Fasteners are 300 Series Stainless Steel



## Bulk Tank Adapter Kits

Kit contains base, threaded adapter, and hardware.

| Model   | Description                       |
|---------|-----------------------------------|
| 67234   | Polypropylene / Viton O-ring seal |
| 67234-7 | 300 series stainless steel        |



## Pump Outlet Adapter

| Model | Description   |
|-------|---|
| 95189 | Composite Fitting - 1/2" (12.7 mm) NPT (in) x MaleCam adapter (polypropylene) |
| 95190 | Aluminum Fitting - 1/2" (12.7 mm) NPT (in) x MaleCam adapter (aluminum)       |

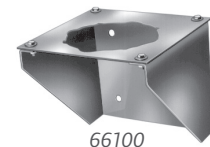
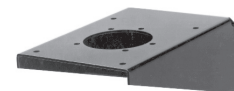
## Suction Tubes

| Model                | Description  | Pumps used with   |
|----------------------|--|---|
| <b>SUCTION TUBES</b> |  |   |
| 91020-1              | 1/2" (12.7 mm) galvanized suction tube for 5-gal containers; 16" (406.4 mm) long   | 1/2" (12.7 mm) diaphragm pumps                            |
| 65986-1              | Siphon tube has 6' (1.8 m) long, 3/4" (19.1 mm) ID hose with 3/4" (19.1 mm) NPT (M) outlet; hose is Neoprene over Thiokol  | Drum cover for closed drum with 2" (50.8 mm) bung opening |
| 66779                | For pumping from 55-gal (208.1 L) drum; PVC tube has foot valve for positive priming; includes 76193 bung adapter, adjustable to approximately 35-1/2" (901.7 mm); 1" (25.4 mm) NPT (F) fluid outlet                                   | Stub pumps and diaphragm pumps                            |
| 61409                | For pumping from 55-gal (208.1 L) drum; 90° PVC siphon tube, 35-1/2" (901.7 mm) long with 2" (50.8 mm) bung adapter for 55 gal (208.1 L) drums that can easily be cut to desired length on site; 1/2" (12.7 mm) NPT (F) outlet         | 1/2" (12.7 mm) diaphragm pumps and stub pumps             |
| 61412                | For pumping from 55-gal (208 L) drum; Threads directly into pump inlet, includes 2" (50.8 mm) bung adapter 36-1/4" (.92 m) long; schedule 80 PVC pipe can easily be cut to desired length on site; 1/2" (12.7 mm) NPT (M) fluid outlet | 1/2" (12.7 mm) diaphragm pump                             |



## Wall-mount Bracket

| Model                  | Description  | Pumps used with                  |
|------------------------|--|----------------------------------|
| <b>DIAPHRAGM PUMPS</b> |  |                                  |
| 76763                  | Wall-mount bracket allows pump to be located convenient to container | 1/2" (12.7 mm) diaphragm pumps   |
| 66100                  | Wall-mount bracket has removable mounting plate                      | 1" (25.4 mm) diaphragm pumps     |
| 62133                  | Wall-mount bracket   | 1-1/2" (38.1 mm) diaphragm pumps |



## Non-metered Fluid Control Handles

| Model  | Description  | Max working pressure<br>psi (bar) | Fluid inlet<br>NPT (F)<br>in (mm) | Fluid outlet |
|--|--|-----------------------------------|-----------------------------------|--------------|
| <b>MOTOR OIL, GEAR OIL, TRANSMISSION FLUID</b> |  |                                   |                                   |              |
| <b>HIGH-VOLUME</b>                             |  |                                   |                                   |              |
| 635193   | Has flexible rubber hose with non-drip nozzle; use with 1:1 and 3:1 pumps; Non-drip tip  | 600 (41)                          | 3/4" (19.1)                       | 629212       |
| 635395-2                                       | Has flexible rubber hose with non-drip nozzle; use with 5:1 and 9:1 pumps; non-drip tip  | 900 (63)                          | 3/4" (19.1)                       | 629212       |
| <b>STANDARD-VOLUME</b>                         |  |                                   |                                   |              |
| 635392   | Has flexible rubber hose, built-in swivel and filter, and non-drip nozzle; non-drip tip  | 1,000 (69)                        | 1/2" (12.7)                       | 60164        |
| 635399   | Has flexible rubber hose, built-in swivel, and right-angle non-drip nozzle; non-drip tip | 1,000 (69)                        | 1/2" (12.7)                       | 70790        |
| <b>WATER, ANTIFREEZE</b>                       |  |                                   |                                   |              |
| 635129   | Radiator bibb  | 300 (21)                          | 1/4" (6.3)                        | Non-drip tip |



635193



635399



635392

## Digital, Metered Fluid Control Handles

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

- Lightweight
- Precise
- Fast reset
- Totalizes

| Model   | Max flow rate<br>gpm (L) | Meter /<br>totalizing<br>increments | Max working pressure<br>psi (bar) | Fluid inlet<br>NPT (F)<br>in (mm) | Fluid outlet |
|---|--------------------------|-------------------------------------|-----------------------------------|-----------------------------------|--------------|
| <b>METERED, RIGID NOZZLE MODELS</b>                                 |                          |                                     |                                   |                                   |              |
| 635390-11   | 4 (15)                   | Pints / gallons                     | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| 635390-22   | 4 (15)                   | Quarts / gallons                    | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| 635390-33   | 4 (15)                   | Liters / liters                     | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| <b>NON-METERED, RIGID NOZZLE MODELS (HANDLE AND NOZZLE ONLY)</b>    |                          |                                     |                                   |                                   |              |
| 635391-11   | 4 (15)                   | -                                   | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| <b>METERED, FLEXIBLE NOZZLE MODELS</b>                              |                          |                                     |                                   |                                   |              |
| 635390-1  | 4 (15)                   | Pints / gallons                     | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| 635390-2  | 4 (15)                   | Quarts / gallons                    | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| 635390-3  | 4 (15)                   | Liters / liters                     | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |
| <b>NON-METERED, FLEXIBLE NOZZLE MODELS (HANDLE AND NOZZLE ONLY)</b> |                          |                                     |                                   |                                   |              |
| 635391-1  | 4 (15)                   | -                                   | 1,000 (69)                        | 1/2" (12.7)                       | Non-drip tip |



635390-X



635390-XX



635391-11

635391-1

## Digital, Metered Fluid Control Handles *(continued)*

| Model   | Max flow rate<br>gpm (L) | Meter /<br>totalizing<br>increments | Max working<br>pressure<br>psi (bar) | Fluid<br>NPT (F)<br>in (mm) | inlet |
|---|--------------------------|-------------------------------------|--------------------------------------|-----------------------------|-------|
| <b>METER ONLY</b>                               |                          |                                     |                                      |                             |       |
| 635190-1  | 4 (15)                   | Pints / gallons                     | 1,000 (69)                           | 1/2" (12.7)                 |       |
| 635190-2  | 4 (15)                   | Quarts / gallons                    | 1,000 (69)                           | 1/2" (12.7)                 |       |
| 635190-3  | 4 (15)                   | Liters / liters                     | 1,000 (69)                           | 1/2" (12.7)                 |       |
| <b>METER, CONTROL HANDLES (WITHOUT NOZZLES)</b> |                          |                                     |                                      |                             |       |
| 635390-30                                       | 4 (15)                   | Liters / liters                     | 1,000 (69)                           | 1/2" (12.7)                 |       |



635190-X  
Order protective boot  
74066 separately.

## Metered Fluid Control Handles

| Model   | Units Of<br>measure                  | Totalizing<br>increments | Working pressure<br>psi (bar) | Inlet size<br>in (mm) | Fluid outlet                             |
|---|--------------------------------------|--------------------------|-------------------------------|-----------------------|--|
| <b>PRESET, DIGITAL METERED FLOW CONTROL</b>   |                                      |                          |                               |                       |  |
| Preset unit automatically shuts off when set quantity of fluid is delivered and meter indicator returns to zero. Totalizer registers up to 9,999 units. |                                      |                          |                               |                       |  |
| 635360-2  | Quarts                               | Gallons                  | 1,000 (69)                    | 1/2" (12.7)           | Non-drip flex extension                  |
| 635360-22   | Quarts                               | Gallons                  | 1,000 (69)                    | 1/2" (12.7)           | Non-drip rigid extension                 |
| Preset unit automatically shuts off when set quantity of fluid is delivered and meter indicator returns to zero. Totalizer registers up to 9,999 units. |                                      |                          |                               |                       |  |
| 635364  | 1 to 60 quarts                       | Gallons                  | 1,000 (69)                    | 1/2" (12.7)           | 9/16" (14.3 mm)<br>diameter non-drip tip |
| 635365  | 1 to 60 gallons                      | Gallons                  | 1,000 (69)                    | 1/2" (12.7)           | 9/16" (14.3 mm)<br>diameter non-drip tip |
| 635367  | 1 to 60 liters<br>with auto shut-off | Liters                   | 1,000 (69)                    | 1/2" (12.7)           | 9/16" (14.3 mm)<br>diameter non-drip tip |



635360-2



635365

## Non-drip Nozzle / Hose

| Model   | Description                         | Fluid inlet<br>NPT<br>in (mm) | Length<br>in (mm) | Max working<br>pressure<br>psi (bar) |
|---|-------------------------------------|-------------------------------|-------------------|--------------------------------------|
| <b>MOTOR OIL, GEAR OIL, TRANSMISSION FLUID</b>  |                                     |                               |                   |                                      |
| 629212  | Non-drip nozzle / hose              | 3/4" (19.1)                   | 12" (305)         | 900 (62)                             |
| 629226  | Non-drip nozzle / hose              | 1/2" (12.7)                   | 11" (279)         | 900 (62)                             |
| 629516  | Non-drip nozzle / hose              | 1/2" (12.7)                   | 13" (330)         | 1,000 (69)                           |
| 629521  | Right-angle nozzle / hose           | 1/2" (12.7)                   | 15" (381)         | 1,000 (69)                           |
| 6786  | Right-angle, rigid, non-drip nozzle | 1/4" (6.3)                    | 6-1/2" (165)      | 1,000 (69)                           |
| 60798   | Rigid, non-drip nozzle              | 1/2" (12.7)                   | 5-1/2" (133)      | 1,000 (69)                           |
| <b>NOZZLE, FLEXIBLE HOSE, WITH NON-DRIP TIP</b> |                                     |                               |                   |                                      |
| 629245-1  | Flexhose, non-drip tip              | 1/2" (12.7)                   | 15" (381)         | 1,000 (69)                           |
| <b>NOZZLE, RIGID TUBE WITH NON-DRIP TIP</b>     |                                     |                               |                   |                                      |
| 629245-2  | Rigid tube, non-drip tip            | 1/2" (12.7)                   | 13" (330)         | 1,000 (69)                           |



629212



629226



629516



629521



6786

## High-pressure Grease Control Handles

| Model   | Description  | Max working pressure<br>psi (bar) | Fluid inlet<br>NPT (F)<br>in (mm)   | Fluid outlet<br>in (mm)                               |
|---|--|-----------------------------------|-------------------------------------|---|
| <b>GREASE CONTROL HANDLES</b>                 |  |                                   |                                     |   |
| 636101  | Dispenses lubrication at line pressure for lubricating grease fittings; does not include nozzle or hydraulic coupler; for applications requiring high-flow capacity; remove the 1/8" (3.2 mm) (M) x 3/8" (9.5 mm) (M) adapter for 3/8" (9.5 mm) (F) porting  | 7,500<br>(517)                    | 3/8" (9.5) (F)                      | 11/16" – 16<br>(17.5) (M)<br>or 1/8" (3.2)<br>NPT (F) |
| 636111  | Dispenses lubricant at line pressure for lubricating grease fittings; includes inlet material filter and curved nozzle with hydraulic coupler; remove the 1/8" (3.2 mm) (M) x 3/8" (9.5 mm) (M) adapter for 3/8" (9.5 mm) (F) porting  | 7,500<br>(517)                    | 1/8" (3.2) (M)<br>or 3/8" (9.5) (F) | Hydraulic<br>coupler                                  |
| 636103  | High-pressure booster handle delivers line pressure for normal lubrication; trigger booster feature delivers 10,000 psi (689 bar) to loose tougher fittings; includes curved nozzle with hydraulic coupler, inlet material filter and manual pressure vent for easy disconnection; do not use with whip hose | 7,500<br>(517)                    | 1/8" (3.2) (M)<br>or 3/8" (9.5) (F) | Hydraulic<br>coupler                                  |
| <b>WHIP HOSES FOR GREASE CONTROL HANDLES*</b> |  |                                   |                                     |   |
| 629742  | Extra-long, wire braid (624201-02) whip hose with hydraulic coupler and swivel; overall length of 29-1/2" (749 mm); for use with coupler 636111 high-pressure control handle; allows operator to access hard-to-reach fittings   | 5,000<br>(345)                    | 1/8" (3.2) (F)                      | 636046<br>hydraulic                                   |

\*WARNING: Not for use with 636103 high-pressure booster handle.



636101

636111



636103



629742

## Specialty Application Control Handle

| Model                                      | Description   |
|--|---|
| <b>WATER, ANTIFREEZE, WINDSHIELD FLUID</b> |   |
| 635129                                     | Fluid dispensing nozzle — 635129 bibb with trigger 1/4" (6.3 mm) NPT(F) inlet, zinc die casting with brass, and nitrile seals for water or oil service; radiator-type bibb has 1/4" (6.3 mm) fluid inlet and non-drip tip |



635129

# Hand-operated Pumps

## Motor Oil, Gear Oil, Transmission Fluid

| Model  | Description  |
|--------|--|
| 5-GAL  |  |
| 611170 | Capable of high-volume delivery; includes 621597-5 hose / dispensing, 2:1, 4:1, 7:1 nozzle assembly with 5' (1.5 m), 1/2" (12.7 mm) ID hose and 72006 drum cover |



611170  
Container not included.

## Grease Gun Accessories

### Button head coupler

#### 636020

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

#### 636024

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



| Model  | Inlet thread connection in (mm) | Length in (mm) | Max working pressure psi (bar) |
|--------|---------------------------------|----------------|--------------------------------|
| 636020 | 7/16"-27 (11.1) (F)             | -              | 8,000 (552)                    |
| 636024 | 1/8" (3.2) NPT (F)              | -              | 8,000 (552)                    |
| 636027 | 1/8" (3.2) NPT (F)              | 1-5/8" (41)    | 6,000 (414)                    |
| 636028 | 1/8" (3.2) NPT (F)              | 1-5/8" (41)    | 10,000 (689)                   |
| 636046 | 1/8" (3.2) NPT (F)              | 1-7/16" (37)   | 6,000 (414)                    |

### Standard Hydraulic Couplers

#### 636027

Small-diameter hydraulic coupler.



#### 636028

Reversible jaw hydraulic coupler.

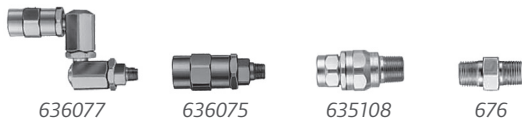


#### 636046

Small-diameter hydraulic coupler with ball check.

### Swivels

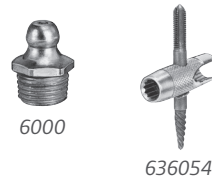
| Model                                     | Thread Size NPT x NPT in | Type of Seals        | Max Working Pressure psi (bar) |
|---|--------------------------|----------------------|--------------------------------|
| <b>STRAIGHT SWIVEL</b>                    |                          |                      |                                |
| 636075                                    | 1/8" (M) x 1/8" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 636085                                    | 3/8" (M) x 3/8" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 635107                                    | 3/8" (M) x 1/2" (F)      | Fabric with neoprene | 2,000 (137.8)                  |
| 635117                                    | 1/2" (M) x 1/2" (F)      | Fabric with neoprene | 2,000 (137.8)                  |
| 635108                                    | 3/4" (M) x 3/4" (F)      | Fabric with neoprene | 1,000 (68.9)                   |
| <b>Z 360° SWIVEL</b>                      |                          |                      |                                |
| 636077                                    | 1/8" (M) x 1/8" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 636083                                    | 1/8" (F) x 3/8" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 636084                                    | 1/8" (F) x 1/4" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 636086-B                                  | 1/4" (F) x 1/4" (M)      | Fabric with neoprene | 6,700 (461.8)                  |
| 636087-B                                  | 1/4" (F) x 1/4" (M)      | Fabric with neoprene | 6,700 (461.8)                  |
| Includes 67176-5 edge-type filter element |                          |                      |                                |
| 636088                                    | 3/8" (M) x 3/8" (F)      | Fabric with neoprene | 10,000 (689.4)                 |
| 635106                                    | 1/2" (F) x 3/8" (M)      | Fabric with neoprene | 10,000 (689.4)                 |



## Grease Fitting Accessories

| Model                      | Description       | Thread size NPT in (mm)         | Height in (mm) |
|----------------------------|-------------------|---------------------------------|----------------|
| <b>STRAIGHT</b>            |                   |                                 |                |
| 6000                       | Straight          | 1/8" (3.2) (M)                  | 21/32" (16.7)  |
| 6001                       | Straight          | 1/8" (3.2) (M)                  | 1-1/4" (31.7)  |
| 6026                       | Straight          | 1/4" (6.3) (M)                  | 7/8" (22.2)    |
| 6010                       | Long straight     | 1/4" - 28 (6.3)                 | 11/16" (17.5)  |
| <b>ELBOW</b>               |                   |                                 |                |
| 6005                       | 45° elbow         | 1/8" (3.2) (M)                  | 7/8" (22.2)    |
| 6011                       | 45° elbow (short) | 1/4" - 28 (6.3)                 | 13/16" (20.6)  |
| <b>DRIVE TYPE FITTINGS</b> |                   |                                 |                |
| 6060                       | Straight          | 5/16" (7.9) serrated            | 5/8" (15.9)    |
| 6069                       | Straight          | 3/16" (4.8) serrated            | 19/32" (15.1)  |
| <b>ELBOW BODIES</b>        |                   |                                 |                |
| 6045                       | 90° elbow         | 1/8" (3.2) (M) x 1/8" (3.2) (F) | 1" (25.4)      |

| Model                                | Description   |
|--------------------------------------|---|
| <b>GREASE FITTING EASY-OUT TOOLS</b> |   |
| 636053                               | Four-function tool <ul style="list-style-type: none"> <li>• Easy-out for removing broken fittings</li> <li>• 1/8" (3.2 mm) NPT tap</li> <li>• 3/8" (9.5 mm) socket for removing hydraulic fittings</li> <li>• 7/16" (11.1 mm) socket for removing hydraulic fittings</li> </ul> |
| 636054                               | Four-function tool <ul style="list-style-type: none"> <li>• Easy-out for removing broken fittings</li> <li>• 1/4"-28 (6.3 mm) tap</li> <li>• 5/16" (7.9 mm) socket for removing hydraulic fittings</li> <li>• 3/8" (9.5 mm) socket for removing hydraulic fittings</li> </ul>   |





# General Installation Accessories

## Overrun Controls

| Model   | Air inlet<br>NPT(F)<br>in (mm) | Air outlet<br>NPT(F)<br>in (mm) | Pressure<br>range<br>psi (bar) | For use with   |
|---|--------------------------------|---------------------------------|--------------------------------|--|
| <b>ARO-STOP® VALVES</b>   |                                |                                 |                                |  |
| ARO-STOP® valves shut off air to pump when material container is empty or fluid line is broken. Both have quick-set and reset features. |                                |                                 |                                |  |
| 635040  | 1/4" (6.3)                     | 1/4" (6.3)                      | 20 – 175<br>(1.4 – 12.1)       | LM Series and (1.4 - 12) 61204X-X Pumps and 1/2" (12.7 mm) diaphragm pump (includes connecting hose) |
| (max flow rate of 23 scfm @ 90 psi)   |                                |                                 |                                |  |
| 23644-400   | 1/2" (12.7)                    | 1/2" (12.7)<br>NPT (M)          | 20 – 175<br>(1.4 – 12.1)       | AFX Series only<br>(1.4 - 12) and 1" (25.4 mm) diaphragm pump  |



### Protect your investment

Pump run away happens when a material container is depleted and the pump cycles fast and needlessly. It's not good. So, protect your pump investment with an ARO-STOP® valve.



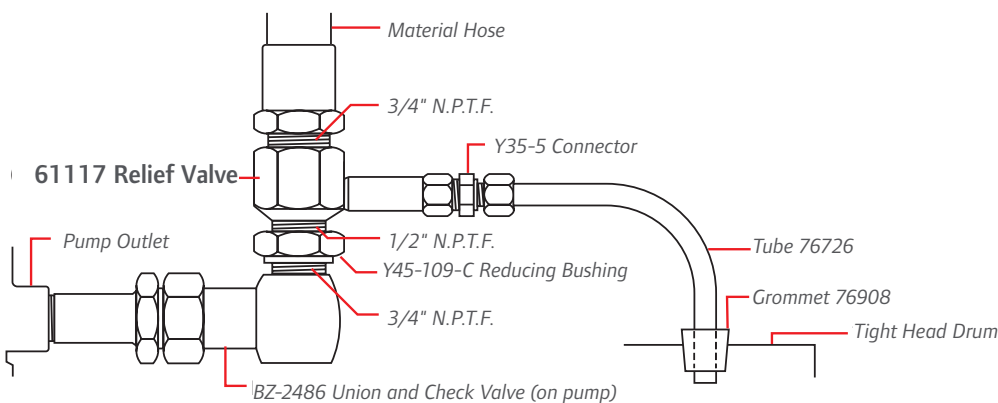
635040



23644-400

## Pressure Relief Valve / Valve Kit

| Model                                     | Description  |
|---|--|
| <b>PRESSURE RELIEF VALVE / VALVE KITS</b> |  |
| 61117                                     | Pressure relief valve is used on material outlet side of pump to automatically allow bleed-back of material to container in applications where thermal expansion is present. |
| 61118                                     | Pressure relief valve kit includes 61117 relief valve, reducing bushing, compression coupling, 3' (0.9 m) of plastic drain tubing, and grommet (for drum attachment)         |



# General Installation Accessories

## General Accessories

**640058-2**  
Dolly for 16-gal (60.6 L) keg.

**94421**  
Drum cover for 16-gal (60.6 L) keg.

**640165**  
Follower plate for 3" (76.2 mm) LM Series and 120-lb (54.4 kg) container. For use with LM Series grease.

**640015-1**  
Follower plate for 3" (76.2 mm) LM Series and 400-lb (181.4 kg) container.  
For use with LM Series grease.



640015-1

**640095-1-B**  
Follower plate for 2" (50.8 mm) Thunder Series and 35-lb (15.9 kg) container. For use with LM Series grease.



640095-2-B

**640095-2-B**  
Follower plate for 3" (76.2 mm) LM Series and 35-lb (15.9 kg) container.  
For use with LM Series grease.

**67145-2**  
Bung adapter for 3" (76.2 mm) LM Series grease pump. For use with LM Series grease.



67145-X

**67145-3-B**  
Bung adapter for 2" (50.8 mm) LM Series oil pump. For use with LM Series oil.



67145-X-B

**67145-4-B**  
Bung adapter for 3" (76.2 mm) LM Series oil pump. For use with LM Series oil.

**61118**  
Pressure relief valve kit.

**77617**  
Oil taper fitting (converts oil taper to 1/2", 12.7 mm inlet).

**640164**  
Tie-down kit for 16-gal / 120-lb (60.6 L / 54.4 kg) containers.

**71027-1**  
Tie-down kit for 55-gal / 400-lb (208.1 L / 181.4 kg) containers.

## Dispensing Accessories

**621516-10**  
10' (3.0 m) hose and dispensing bibb for use with diaphragm pump.



621516-10

**635129**  
Dispensing bibb for use with diaphragm pump.

**621523-10**  
10' (3.0 m) hose with no-drip nozzle. For use with diaphragm pump.



625123-10

**95189**  
Poly cam coupler 1/2" (12.7 mm) NPT (M)

**95190**  
Aluminum cam coupler 1/2" (12.7 mm) NPT (M)

## Installation Accessories

**65986-1**  
Siphon tube with 6' (1.8 m) hose for 55-gal (208.1 liter) drum with 2" (50.8 mm) bung. For use with LM Series and diaphragm pumps.

**61601**  
Siphon tube with 6' (1.8 m) hose for 55-gal (208.1 liter) drum for wall-mounted pump. For use with LM Series pump.



61601

**66779**  
Siphon tube for 55-gal (208.1 liter) drum. For use with LM Series and diaphragm pumps.

**66779-1**  
Siphon tube for 55-gal (208.1 liter) drum. For use with LM Series and diaphragm pumps.

**66779-2**  
Siphon tube with 6' (1.8 m) hose for AFX Series container. For use with LM Series and diaphragm pumps.

**622701-6**  
6' (1.8 m) siphon hose. For use with LM Series and diaphragm pumps.

**61113**  
Wall-mount for stub pumps. For use with LM Series pump.

**61412**  
Siphon tube for 1/2" (12.7 mm) diaphragm pump.

**76763**  
Wall-mount for 1/2" (12.7 mm) diaphragm pumps.

**66100**  
Wall-mount for 1" (25.4 mm) diaphragm pumps.

## High-pressure Hose

| Model                                  | ID<br>in (mm) | OD<br>in (mm) | Fitting threads<br>both ends<br>in (mm) | Max<br>pressure<br>psi (bar) | Length<br>ft (m) |
|--|---------------|---------------|---|------------------------------|------------------|
| <b>BUNA-N TUBE, NEOPRENE COVER</b>     |               |               |   |                              |                  |
| <b>1-WIRE BRAID</b>                    |               |               |   |                              |                  |
| 623501-2                               | 1/2" (12.7)   | 29/32" (23.0) | 1/2" (12.7) NPT (M)                     | 2,000 (138)                  | 2' (0.6)         |
| 623501-5                               | 1/2" (12.7)   | 29/32" (23.0) | 1/2" (12.7) NPT (M)                     | 2,000 (138)                  | 5' (1.5)         |
| 623501-6                               | 1/2" (12.7)   | 29/32" (23.0) | 1/2" (12.7) NPT (M)                     | 2,000 (138)                  | 6' (1.8)         |
| 623501-8                               | 1/2" (12.7)   | 29/32" (23.0) | 1/2" (12.7) NPT (M)                     | 2,000 (138)                  | 8' (2.4)         |
| <b>2-WIRE BRAID</b>                    |               |               |   |                              |                  |
| 624201-2                               | 1/4" (6.3)    | 11/16" (17.5) | 1/8" (3.2) NPT (F)                      | 5,000 (345)                  | 2' (0.6)         |
| 624201-6                               | 1/4" (6.3)    | 11/16" (17.5) | 1/8" (3.2) NPT (F)                      | 5,000 (345)                  | 6' (1.8)         |
| 624201-10                              | 1/4" (6.3)    | 11/16" (17.5) | 1/8" (3.2) NPT (F)                      | 5,000 (345)                  | 10' (3)          |
| 624201-30                              | 1/4" (6.3)    | 11/16" (17.5) | 1/8" (3.2) NPT (F)                      | 5,000 (345)                  | 30' (9.1)        |
| 624401-4                               | 3/8" (9.5)    | 27/32" (21.4) | 3/8" (9.5) NPT (M)                      | 4,000 (276)                  | 4' (1.2)         |
| 624401-8                               | 3/8" (9.5)    | 27/32" (21.4) | 3/8" (9.5) NPT (M)                      | 4,000 (276)                  | 8' (2.4)         |
| 624601-4                               | 3/4" (19.1)   | 1-1/4" (31.7) | 3/4" (19.1) NPT (M)                     | 2,250 (155)                  | 4' (1.2)         |
| <b>ELASTOMER TUBE, POLYESTER COVER</b> |               |               |   |                              |                  |
| <b>1-WIRE BRAID</b>                    |               |               |   |                              |                  |
| 628067-3                               | 1" (25.4)     | 1-1/4" (31.7) | 1" (25.4) NPT (M)                       | 800 (55)                     | 3' (0.9)         |

In selecting a hose, be sure the hose material is compatible with the fluid being pumped and that the maximum working pressure will not be exceeded in the application. Only those hose length options listed with each model are available. Substitute -XX with -5, -15, -25, etc., to indicate length selection. (Example: Substitute -XX with length selection, such as -50. If length is single digit, use that digit only. Do not add zeros.)

**\*CAUTION: These hoses cannot be used with 100:1 ratio pumps.**

Never use a hose with a maximum pressure rating lower than the highest pressure the pump can generate.

## Low-pressure Hose

| Model                                | ID<br>in (mm) | OD<br>in (mm)  | Fitting threads<br>both ends<br>in (mm) | Max<br>pressure<br>psi (bar) | Length<br>ft (m) |
|--------------------------------------|---------------|----------------|---|------------------------------|------------------|
| <b>NEOPRENE TUBE, NEOPRENE COVER</b> |               |                |   |                              |                  |
| <b>2-FABRIC BRAID</b>                |               |                |   |                              |                  |
| 622651-5                             | 3/4" (19.1)   | 1-3/16" (30.2) | 3/4" (19.1) NPT (M)                     | 600 (41)                     | 5' (1.5)         |
| 622651-6                             | 3/4" (19.1)   | 1-3/16" (30.2) | 3/4" (19.1) NPT (M)                     | 600 (41)                     | 6' (1.8)         |
| 622651-10                            | 3/4" (19.1)   | 1-3/16" (30.2) | 3/4" (19.1) NPT (M)                     | 600 (41)                     | 10' (3)          |
| 622651-15                            | 3/4" (19.1)   | 1-3/16" (30.2) | 3/4" (19.1) NPT (M)                     | 600 (41)                     | 15' (4.6)        |
| <b>BUNA-N TUBE, NEOPRENE COVER</b>   |               |                |   |                              |                  |
| <b>2-FABRIC BRAID</b>                |               |                |   |                              |                  |
| 622201-3                             | 1/4" (6.3)    | 5/8" (15.9)    | 1/4" (6.3) NPT (M)                      | 250 (17)                     | 3' (0.9)         |
| 622201-5                             | 1/4" (6.3)    | 5/8" (15.9)    | 1/4" (6.3) NPT (M)                      | 250 (17)                     | 5' (1.5)         |
| 622201-25                            | 1/4" (6.3)    | 5/8" (15.9)    | 1/4" (6.3) NPT (M)                      | 250 (17)                     | 25' (7.6)        |

## Fluid Control Valves

| Model  | Inlet outlet NPT in (mm)            | Body material       | Seat material | Max working pressure psi (bar) |
|--|-------------------------------------|---------------------|---------------|--------------------------------|
| <b>BALL VALVES</b>   |                                     |                     |               |                                |
| Used to control the on-off flow of fluid material or air. Select proper working pressure and material compatibility for application. |                                     |                     |               |                                |
| 66592  | 1/2" (12.7) (F)                     | Carbon steel        | PTFE          | 2,000 (138)                    |
| 66593  | 3/8" (9.5) NPS (M) x 3/8" (9.5) (M) | 303 stainless steel | PTFE          | 4,000 (276)                    |
| <b>PLUG VALVES</b>   |                                     |                     |               |                                |
| Y28-1  | 1/4" (6.3) (F)                      | Brass               | N/A           | 150 (10)                       |
| Y28-2  | 1/8" (3.2) (F)                      | Brass               | N/A           | 150 (10)                       |
| <b>NEEDLE VALVES</b>   |                                     |                     |               |                                |
| 92818  | 1/4" (6.3) (F) x 1/4" (6.3) (M)     | Brass               | Leather       | 125 (9)                        |
| <b>GLOBE VALVES</b>  |                                     |                     |               |                                |
| Y26-1  | 3/4" (19.1) (F)                     | Brass               | Graphite      | 125 (9)                        |
| <b>BALL VALVES</b>   |                                     |                     |               |                                |
| 104077-2   | 1/4" (6.3) (F)                      | Nickel-plated brass | PTFE          | 225 (16)                       |
| 104077-3   | 3/8" (9.5) (F)                      | Nickel-plated brass | PTFE          | 225 (16)                       |
| 104077-4   | 1/2" (12.7) (F)                     | Nickel-plated brass | PTFE          | 225 (16)                       |



## Fittings

| Model  | Thread size NPT in (mm)                | Material of construction |
|--|--|--------------------------|
| <b>STRAIGHT COUPLINGS — 150 PSI (10 BAR) MAX</b> |  |                          |
| <b>6,750 PSI (446 BAR) MAX</b>                   |  |                          |
| 77617  | 3/8" (9.5) (M) x 1/2" (12.7) (M)       | Zinc-plated steel        |
| <b>5,000 PSI (345 BAR) MAX</b>                   |  |                          |
| 76751  | 1/4" (6.3) (M) x 11/16"-16 (17.5) (M)  | Steel                    |
| <b>8,000 PSI (552 BAR) MAX</b>                   |  |                          |
| 2722   | 1/8" (3.2) (M) x 11/16"-16" (17.5) (M) | Steel                    |
| 73581  | 1/4" (6.3) (M) x 3/8" (9.5) (M)        | Steel                    |
| 76493  | 1/8" (3.2) (M) x 3/8" (9.5) (M)        | Steel                    |
| <b>REDUCING BUSHINGS — 150 PSI (10 BAR) MAX</b>  |  |                          |
| Y45-5-C  | 1/4" (6.3) (F) x 1/2" (12.7) (M)       | Iron                     |
| Y45-9-C  | 1/2" (12.7) (F) x 3/4" (19.1) (M)      | Iron                     |



## Fittings *(continued)*

| Model   | Thread size NPT<br>in (mm)            | Material of<br>construction |
|---|---------------------------------------|-----------------------------|
| <b>3,000 PSI (207 BAR) MAX</b>                      |                                       |                             |
| Y45-102-C   | 1/8" (3.2) (F) x 3/8" (9.5) (M)       | Steel                       |
| Y45-105-C   | 1/4" (6.3) (F) x 1/2" (12.7) (M)      | Steel                       |
| Y45-106-C   | 3/8" (9.5) (F) x 1/2" (12.7) (M)      | Steel                       |
| Y45-109-C   | 1/2" (12.7) (F) x 3/4" (19.1) (M)     | Steel                       |
| <b>10,000 PSI (690 BAR) MAX</b>                     |                                       |                             |
| 6788  | 1/4" (6.3) (F) x 1/2" (12.7) (M)      | Steel                       |
| <b>STREET ELBOWS — 150 PSI (10 BAR) MAX</b>         |                                       |                             |
| Y43-1-C   | 1/8" (3.2) (M) x 1/8" (3.2) (F)       | Iron                        |
| Y43-2-C   | 1/4" (6.3) (M) x 1/4" (6.3) (F)       | Iron                        |
| Y43-4-C   | 1/2" (12.7) (M) x 1/2" (12.7) (F)     | Iron                        |
| Y43-5-C   | 3/4" (19.1) (M) x 3/4" (19.1) (F)     | Iron                        |
| Y43-6-C   | 1" (25.4) (M) x 1" (25.4) (F) plated  | Iron                        |
| <b>STRAIGHT COUPLINGS — 150 PSI (10 BAR) MAX</b>    |                                       |                             |
| Y43-44  | 1/2" (12.7) (F) x 1/2" (12.7) (F)     | Iron                        |
| Y43-48-C  | 1-1/2" (38.1) (F) x 1-1/2" (38.1) (F) | Iron                        |
| <b>REDUCING COUPLINGS — 8,000 PSI (552 BAR) MAX</b> |                                       |                             |
| 4280  | 1/8" (3.2) (F) x 3/8" (9.5) (F)       | Steel                       |
| <b>SHORT NIPPLES — 150 PSI (10 BAR) MAX</b>         |                                       |                             |
| Y27-2-C   | 1/4" (6.3) (M) x 1/4" (6.3) (M)       | Plated iron                 |
| Y27-52-C  | 1/4" (6.3) (M) x 1/4" (6.3) (M)       | Plated iron                 |
| Y27-54-C  | 1/2" (12.7) (M) x 1/2" (12.7) (M)     | Plated iron                 |
| Y27-55-C  | 3/4" (19.1) (M) x 3/4" (19.1) (M)     | Plated iron                 |
| Y27-56-C  | 1" (25.4) (M) x 1" (25.4) (M)         | Plated iron                 |
| Y27-58-C  | 1-1/2" (38.1) (M) x 1-1/2" (38.1) (M) | Plated iron                 |
| <b>8,000 PSI (552 BAR) MAX</b>                      |                                       |                             |
| 676   | 1/8" (3.2) (M) x 1/8" (3.2) (M)       | Steel                       |
| 1950  | 1/4" (6.3) (M) x 1/4" (6.3) (M)       | Steel                       |
| 70749   | 1/2" (12.7) (M) x 1/2" (12.7) (M)     | Steel                       |
| <b>LONG NIPPLES — 150 PSI (10 BAR) MAX</b>          |                                       |                             |
| <b>LENGTH — 2" (51 MM)</b>                          |                                       |                             |
| Y44-11-C  | 1/4" (6.3)                            | Plated iron                 |
| <b>LENGTH — 2-1/2" (63.5 MM)</b>                    |                                       |                             |
| Y44-12-C  | 1/4" (6.3)                            | Plated iron                 |
| <b>ELBOWS — 150 PSI (10 BAR) MAX</b>                |                                       |                             |
| Y43-12-C  | 1/4" (6.3) (F) x 1/4" (6.3) (F)       | Iron                        |
| Y43-15-C  | 3/4" (19.1) (F) x 3/4" (19.1) (F)     | Iron                        |
| <b>3,000 PSI (207 BAR) MAX</b>                      |                                       |                             |
| Y43-214-N   | 1/2" (12.7) (F) x 1/2" (12.7) (F)     | Steel                       |
| Y43-215   | 3/4" (19.1) (F) x 3/4" (19.1) (F)     | Steel                       |



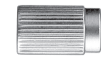
Y45-106-C



Y43-2-C



Y43-44



4280



676



Y43-214-N

## Fittings (continued)

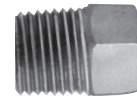
| Model                     | Thread size NPT<br>in (mm)                            | Material of<br>construction | Max pressure<br>psi (bar) |
|---------------------------|---|-----------------------------|---------------------------|
| <b>SWIVEL UNIONS</b>      |   |                             |                           |
| 75364                     | 1/4" (6.3) (M) x 1/4" (6.3) (F)                       | Steel                       | 10,000 (690)              |
| 75366                     | 1/2" (12.7) (M) x 1/2" (12.7) (F)                     | Steel                       | 6,750 (466)               |
| 75367                     | 3/4" (19.1) (M) x 3/4" (19.1) (F)                     | Steel                       | 4,375 (302)               |
| 75368                     | 1" (25.4) (M) x 1" (25.4) (F)                         | Steel                       | 3,550 (245)               |
| 75369                     | 1/4" (6.3) (F) x 1/4" (6.3) (F)                       | Steel                       | 10,000 (690)              |
| <b>PLAIN TEE — FEMALE</b> |   |                             |                           |
| Y43-32-C                  | 1/4" (6.3) x 1/4" (6.3) x 1/4" (6.3)                  | Iron                        | 150 (10)                  |
| Y43-233-C                 | 3/8" (9.5) x 3/8" (9.5) x 3/8" (9.5)                  | Steel                       | 3,000 (207)               |
| <b>PIPE PLUGS — MALE</b>  |   |                             |                           |
| Y17-50                    | 1/8" (3.2) countersunk (hex)                          | Steel                       | 10,000 (690)              |
| Y17-51                    | 1/4" (6.3) countersunk (hex)                          | Steel                       | 10,000 (690)              |
| <b>FEMALE ADAPTER</b>     |   |                             |                           |
| 4280                      | 3/8" (9.5) (F) x 1/8" (3.2) NPT (F)                   | Steel                       | 8,000 (552)               |
| <b>ADAPTER UNIONS</b>     |   |                             |                           |
| Y167-3                    | 1/2" (12.7) (F) x 3/8" (9.5) NPT (M)                  | Steel                       | 6,000 (414)               |
| Y167-4                    | 3/4" (19.1) (F) x 1/2" (12.7) NPT (M)                 | Steel                       | 5,000 (345)               |
| Y167-5                    | 1/2" (12.7) (F) x 1/4" (6.3) NPT (M)                  | Steel                       | 6,000 (414)               |
| 4295                      | 1/8" (3.2) PTF SAE short (F)<br>x 7/16"-27 (11.1) (M) | Steel                       | 8,000 (552)               |
| 4616                      | 1/2" (12.7) (F) x 1-3/8"-18 (34.9) (M)                | Steel                       | 8,000 (552)               |



75364



Y43-233-C



Y17-10

## Fluid Couplers

| Model | Description   |
|-------|---|
| 92021 | Quick connect fluid coupler (female) — 3/4" (19.1) NPT (F) couples with 92022 fluid connector |



92021

**WARNING:** To ensure safe operation, be sure the maximum working pressure of your fluid handling system does not exceed the maximum working pressure of the fittings.

## Fluid Ball Check Unions

| Model | Body material | Ball material        | Seat material         | Inlet NPT in (mm) | Outlet NPT in (mm) | Max working pressure psi (bar) |
|-------|---------------|----------------------|-----------------------|-------------------|--------------------|--------------------------------|
| 66559 | Carbon steel  | 440C stainless steel | 440 F stainless steel | 1" (25.4) (M)     | 1" (25.4) (F)      | 8,000 (552)                    |



66559

Used to prevent back flow of material.

|   |   |   |  |  |
|---|---|---|--|--|
|  <p>1/8" and 1/4" Ports<br/> <b>Max Inlet Press:</b><br/>                 Poly bowl 150 psi<br/>                 Metal bowl 250 psi<br/> <b>Series size:</b> Miniature</p> |  <p>1/4" and 3/8" Ports<br/> <b>Max Inlet Press:</b><br/>                 Poly bowl 150 psi<br/>                 Metal bowl 250 psi<br/> <b>Series size:</b> Compact</p> |  <p>3/8", 1/2" and 3/4" Ports<br/> <b>Max Inlet Press:</b><br/>                 Poly bowl 150 psi<br/>                 Metal bowl 250 psi<br/> <b>Series size:</b> Standard</p> |  <p>3/4" and 1" Ports<br/> <b>Max Inlet Press:</b><br/>                 Metal bowl 250 psi<br/> <b>Series size:</b> Heavy Duty</p> |  <p>1", 1-1/4", 1-1/2",<br/>                 2" and 3" Ports<br/> <b>Max Inlet Press:</b><br/>                 Filter Metal bowl 300 psi<br/>                 Lubricator Metal bowl 200 psi<br/> <b>Series size:</b> Super Duty</p> |
|---|---|---|--|--|

- ▶ **SAFETY:** Designed with locking bowls and clear multilingual markings
- ▶ **BEST-IN-CLASS AIR FLOW PERFORMANCE:**  
 38% better than the competition
- ▶ **MODULARITY:** All ARO-Flo products are designed to integrate with each other
- ▶ **QUICK ASSEMBLY:** Can be easily, safely and quickly assembled or disassembled with a minimum of tools – no fuss or complications

|                             | 1/8" Port Size                                  | 1/4" Port Size | 3/8" Port Size | 1/2" Port Size | 3/4" Port Size | 1" Port Size | 1-1/2" Port Size | 2" Port Size |
|-----------------------------|---|----------------|----------------|----------------|----------------|--------------|------------------|--------------|
| <b>1000 Series</b>          | 46 scfm*  |                |                |                |                |              |                  |              |
| <b>1500 Series</b>          |   | 85 scfm*       |                |                |                |              |                  |              |
| <b>2000 Series</b>          |   |                | 150 scfm*      |                |                |              |                  |              |
| <b>3000 Series</b>          |   |                |                |                | 215 scfm*      |              |                  |              |
| <b>Super Duty Series</b>    |   |                |                |                |                | 1200 scfm    |                  |              |
| <b>Specialty Regulators</b> | Precision, Stainless Steel and Brass Regulators |                |                |                |                |              |                  |              |

\* Flow rates based off of Filter/Regulator/Lubricator combination unit. Individual units flow rates are higher.



- |                                 |                              |
|---------------------------------|------------------------------|
| <b>1</b> Modular Pipe Adapter   | <b>7</b> Regulator           |
| <b>2</b> T-Brackets             | <b>8</b> ARO-Flo Check Valve |
| <b>3</b> Modular Spacers        | <b>9</b> Manifold Port Block |
| <b>4</b> Modular Lock-Out Valve | <b>10</b> Pressure Switch    |
| <b>5</b> Soft-Start Valve       | <b>11</b> Lubricator         |
| <b>6</b> Filter w/indicator     |                              |



Ingersoll Rand attests that ARO-Flo Series of filters, regulators, lubricators (1000, 1500, 2000, 3000 Series) and select accessories are out of scope for ATEX Directive 94/9/EEC or 2014/34/EU. The products listed in IRITS-1215-197 certificate can be used in group II, category 2 environment; Gas and Dust with temperature a T6 (Ex II 2GD T6) if all conditions set up in the Instruction Manual are met. Instruction Manuals and certificate regarding ATEX Declaration can be found at AROZONE.COM

► **Piston Pump Selection Guide** *(Most popular)*

| Pump Motor Size | Filter Metal Bowl w/Sight Glass | Regulator  | Piggyback, Poly Bowl w/Guard | Piggyback, Poly Bowl w/Guard, Auto Drain | Piggyback, Metal Bowl w/Sight Glass | Piggyback, Metal w/ Sight Glass, Auto Drain | FRL Combo (3 Piece ) Metal Bowl w/Sight Glass | F/R-L Combo (2 Piece ) Metal Bowl w/Sight Glass | FRL Port Size |
|-----------------|---------------------------------|------------|------------------------------|--|-------------------------------------|---|---|---|---------------|
| 2"              | F35221-410                      | R37221-600 | <i>P39224-600</i>            | <i>P39224-604</i>                        | <i>P39224-610</i>                   | P39224-614                                  | C38221-810                                    | <i>C38221-610</i>                               | 1/4" NPT      |
| 3"              | F35221-410                      | R37221-600 | <i>P39224-600</i>            | <i>P39224-604</i>                        | <i>P39224-610</i>                   | P39224-614                                  | C38221-810                                    | <i>C38221-610</i>                               | 1/4" NPT      |
| 4.25"           | F35341-410                      | R37341-600 | <i>P39344-600</i>            | <i>P39344-604</i>                        | <i>P39344-610</i>                   | P39344-614                                  | C38341-810                                    | <i>C38341-610</i>                               | 1/2" NPT      |
| 6"              | F35341-410                      | R37341-600 | <i>P39344-600</i>            | <i>P39344-604</i>                        | <i>P39344-610</i>                   | P39344-614                                  | C38341-810                                    | <i>C38341-610</i>                               | 1/2" NPT      |
| 8"              | F35351-410                      | R37351-600 | <i>P39354-600</i>            | <i>P39354-604</i>                        | <i>P39354-610</i>                   | P39354-614                                  | C38351-810                                    | <i>C38351-610</i>                               | 3/4" NPT      |
| 10"             | F35451-410                      | R37451-600 |                              |  | <i>P39454-610</i>                   | P39454-614                                  | C38451-810                                    | <i>C38451-610</i>                               | 3/4" NPT      |
| 12"             | F35451-410                      | R37451-600 |                              |  | <i>P39454-610</i>                   | P39454-614                                  | C38451-810                                    | <i>C38451-610</i>                               | 3/4" NPT      |

|       |            |            |                   |                   |                   |            |            |                   |          |
|-------|------------|------------|-------------------|-------------------|-------------------|------------|------------|-------------------|----------|
| 2"    | F352B1-410 | R372B1-600 | <i>P392B4-600</i> | <i>P392B4-604</i> | <i>P392B4-610</i> | P392B4-614 | C382B1-810 | <i>C382B1-610</i> | 1/4" BSP |
| 3"    | F352B1-410 | R372B1-600 | <i>P392B4-600</i> | <i>P392B4-604</i> | <i>P392B4-610</i> | P392B4-614 | C382B1-810 | <i>C382B1-610</i> | 1/4" BSP |
| 4.25" | F353D1-410 | R373D1-600 | <i>P393D4-600</i> | <i>P393D4-604</i> | <i>P393D4-610</i> | P393D4-614 | C383D1-810 | <i>C383D1-610</i> | 1/2" BSP |
| 6"    | F353D1-410 | R373D1-600 | <i>P393D4-600</i> | <i>P393D4-604</i> | <i>P393D4-610</i> | P393D4-614 | C383D1-810 | <i>C383D1-610</i> | 1/2" BSP |
| 8"    | F353E1-410 | R373E1-600 | <i>P393E4-600</i> | <i>P393E4-604</i> | <i>P393E4-610</i> | P393E4-614 | C383E1-810 | <i>C383E1-610</i> | 3/4" BSP |
| 10"   | F354E1-410 | R374E1-600 |                   |                   | <i>P394E4-610</i> | P394E4-614 | C384E1-810 | <i>C384E1-610</i> | 3/4" BSP |
| 12"   | F354E1-410 | R374E1-600 |                   |                   | <i>P394E4-610</i> | P394E4-614 | C384E1-810 | <i>C384E1-610</i> | 3/4" BSP |

► **Diaphragm Pump Selection Guide** *(Most popular)*

| Pump Size              | Coalescing Filter Metal Bowl w/Sight Glass | Regulator  | Piggyback, Poly Bowl w/Guard | Piggyback, Poly Bowl w/Guard, Auto Drain | Piggyback, Metal Bowl w/Sight Glass | Piggyback Metal Bowl w/Sight Glass, Auto Drain | FRL Combo (3 Piece ) Metal Bowl w/Sight Glass | FRL Combo (2 Piece ) Metal Bowl w/Sight Glass | FRL Port Size |
|------------------------|--|------------|------------------------------|--|-------------------------------------|--|---|---|---------------|
| 1/4", 3/8", 1/2", 3/4" | F35121-320                                 | R37121-600 | <i>P39124-600</i>            | <i>P39124-604</i>                        | <i>P39124-620</i>                   | P39124-624                                     | C38121-820                                    | C38121-620                                    | 1/4" NPT      |
| 1"                     | F35221-310                                 | R37221-600 | <i>P39224-600</i>            | <i>P39224-604</i>                        | <i>P39224-610</i>                   | P39224-614                                     | C38221-810                                    | C38221-610                                    | 1/4" NPT      |
| 3:1 Ratio              | F35341-310                                 | R37341-600 | <i>P39344-600</i>            | <i>P39344-604</i>                        | <i>P39344-610</i>                   | P39344-614                                     | C38341-810                                    | C38341-610                                    | 1/2" NPT      |
| 1-1/2"                 | F35341-310                                 | R37341-600 | <i>P39344-600</i>            | <i>P39344-604</i>                        | <i>P39344-610</i>                   | P39344-614                                     | C38341-810                                    | C38341-610                                    | 1/2" NPT      |
| 2"                     | F35351-310                                 | R37351-600 | <i>P39354-600</i>            | <i>P39354-604</i>                        | <i>P39354-610</i>                   | P39354-614                                     | C38351-810                                    | C38351-610                                    | 3/4" NPT      |
| 3"                     | F35451-410                                 | R37451-600 |                              |  | <i>P39454-610</i>                   | P39454-614                                     | P39454-611                                    | C38451-810                                    | 3/4" NPT      |

|                        |            |            |                   |                   |                   |            |            |            |          |
|------------------------|------------|------------|-------------------|-------------------|-------------------|------------|------------|------------|----------|
| 1/4", 3/8", 1/2", 3/4" | F351B1-420 | R371B1-600 | <i>P391B4-600</i> | <i>P391B4-604</i> | <i>P391B4-620</i> | P391B4-624 | C381B1-820 | C381B1-620 | 1/4" BSP |
| 1"                     | F352B1-410 | R372B1-600 | <i>P392B4-600</i> | <i>P392B4-604</i> | <i>P392B4-610</i> | P392B4-614 | C382B1-810 | C382B1-610 | 1/4" BSP |
| 3:1 Ratio              | F353D1-410 | R373D1-600 | <i>P393D4-600</i> | <i>P393D4-604</i> | <i>P393D4-610</i> | P393D4-614 | C383D1-810 | C383D1-610 | 1/2" BSP |
| 1- 1/2"                | F353D1-410 | R373D1-600 | <i>P393D4-600</i> | <i>P393D4-604</i> | <i>P393D4-610</i> | P393D4-614 | C383D1-810 | C383D1-610 | 1/2" BSP |
| 2"                     | F353E1-410 | R373E1-600 | <i>P393E4-600</i> | <i>P393E4-604</i> | <i>P393E4-610</i> | P393E4-614 | C383E1-810 | C383E1-610 | 3/4" BSP |
| 3"                     | F354E1-410 | R374E1-600 |                   |                   | <i>P394E4-610</i> | P394E4-614 | P394E4-611 | C384E1-810 | 3/4" BSP |



# Warranty

## AIR SYSTEMS COMPONENTS AND LUBRICATION EQUIPMENT

### Air Systems Components Warranty

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

If Ingersoll Rand® 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. The sole obligation of Ingersoll Rand® and the sole remedy of the original-use purchaser is as stated above and in no event shall Ingersoll Rand® 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.

### Lubrication Equipment Warranty

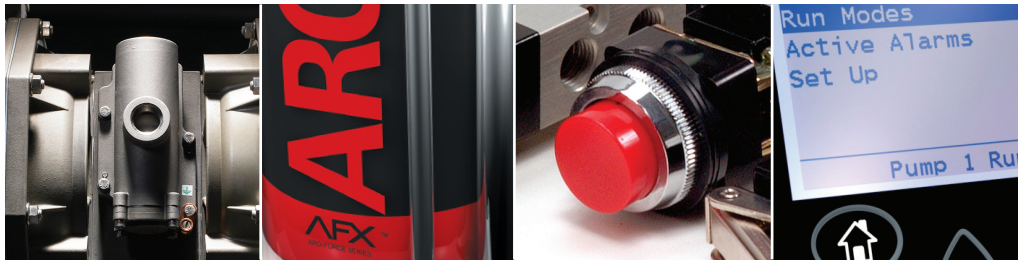
Ingersoll Rand® warrants to the original-use purchaser of the products depicted in this catalog that Ingersoll Rand® will repair or replace, free of charges, including return shipping costs within the continental United States of America, any such product that under normal use and service proves defective in material and workmanship, as determined by Ingersoll Rand® inspection, within (A) one year from date of purchase of said products, other than the following, (B) five years from date of purchase of LM and LP Series pumps, (C) five years from date of purchase of a diaphragm pump, and (D) five years from date of purchase of Ingersoll Rand / ARO®-manufactured swivels, non-metered control handles, 4-1/4", 6", 8" pumps, drains, follower plates, tie-downs, siphon tubes, and drum covers, provided the claimed defective product, or part thereof, is promptly returned to the Ingersoll Rand® factory or 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 that in the judgement of Ingersoll Rand® / ARO® arises from misuse, abrasion, corrosion, negligence, accident, substitution of non-Ingersoll Rand® / ARO® parts, faulty installation, or tampering.

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

Equipment not covered by Ingersoll Rand® warranty: accessories or components of equipment sold by Ingersoll Rand that are not manufactured by Ingersoll Rand® (such as switches, hoses, meters, etc.) are subject to the warranty, if any, of their manufacturer. Ingersoll Rand® 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. The sole obligation of Ingersoll Rand® and the sole remedy of the original-use purchaser is as stated above and in no event shall Ingersoll Rand® 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.



## About ARO®

ARO® is a worldwide manufacturer of fluid management products that are skillfully engineered to deliver performance and serviceability, allowing success to flow freely in our customers' businesses. That's why ARO® is fluid intelligence—the smart choice in fluid management products for industrial operations.

With over an 85-year legacy of premier product performance and service excellence, ARO® provides fluid management equipment for customers and industries around the globe, including chemical, manufacturing, energy, pharmaceutical, mining and more.

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