

ARO®

PISTON PUMPS

ACCESSORIES



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.

ARO® has the right product to meet our customers' specific needs. We offer air-operated diaphragm pumps, piston pumps and packages, filters, regulators, and lubricators (FRLs), lubrication equipment, and pneumatic valves and cylinders.

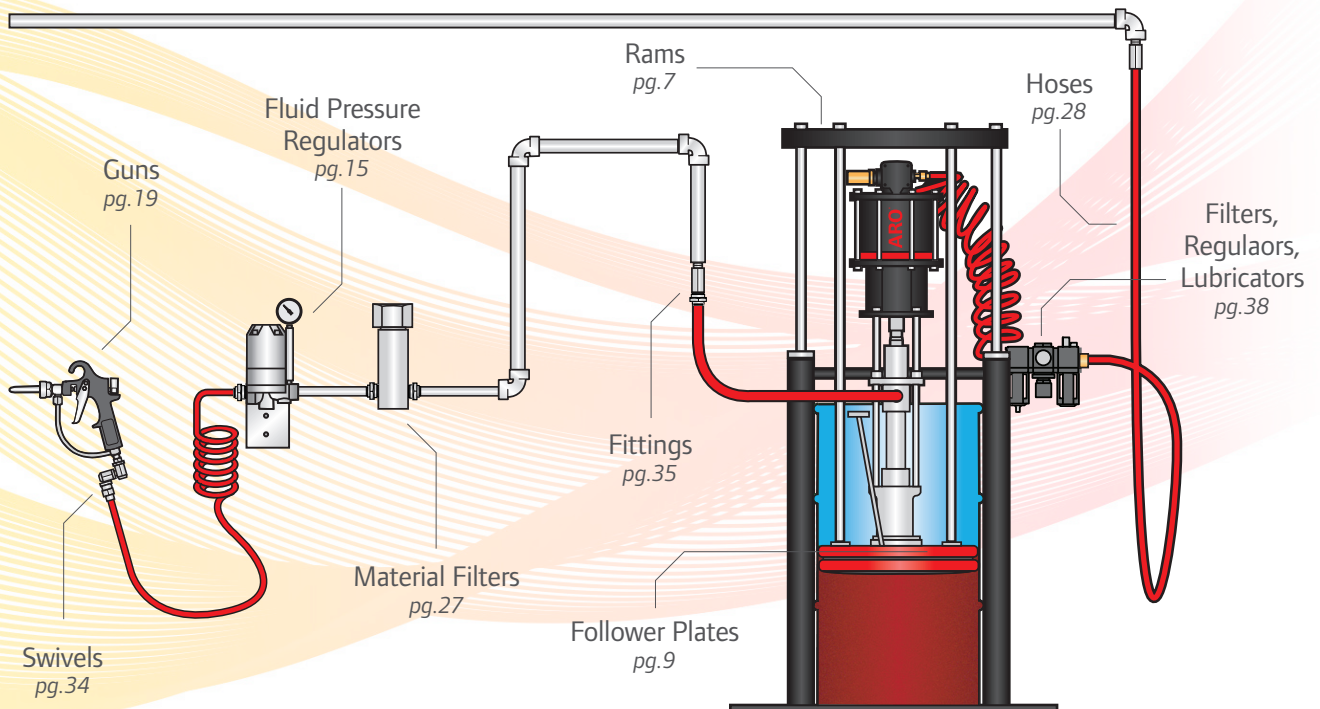
Piston Pump Family Port Sizes

| Pump Family | Pump Type | Ratio | Air or Hyd. Inlet Size (F) | Mat. Out. Size (F) | Pump Family | Pump Type | Ratio | Air or Hyd. Inlet Size (F) | Mat. Out. Size (F) | Pump Family | Pump Type | Ratio | Air or Hyd. Inlet Size (F) | Mat. Out. Size (F) |
|------------------|-----------|-------|----------------------------|--------------------|----------------|------------|-------|----------------------------|--------------------|------------------|----------------|----------|----------------------------|--------------------|
| 650311-X | 2-Ball | 2:1 | 1/4 (6.3) | 3/4 (19.0) | NM2304X-XX-B | 2-Ball | 4:1 | 1/4 (6.3) | 3/4 (19.0) | AF1230511XXXX | Chop-Check | 30:1 | 3/4 (19.0) | 1½ (38.1) |
| 650312-X | 2-Ball | 2:1 | 1/4 (6.3) | 3/4 (19.0) | NM2318B-XX-B | 2-Ball | 18:1 | 1/4 (6.3) | 1/4 (6.3) | AF1265511XXXX | Chop-Check | 65:1 | 3/4 (19.0) | 1¼ (31.7) |
| 650313-X | 2-Ball | 4:1 | 1/4 (6.3) | 3/4 (19.0) | NM2328A-11-X11 | 2-Ball | 28:1 | 1/4 (6.3) | 1/4 (6.3) | NM2322X-X1-B | Chop-Check | 22:1 | 1/4 (6.3) | 1/2 (12.7) |
| 650314-X | 2-Ball | 4:1 | 1/4 (6.3) | 3/4 (19.0) | AF0402M11XXXX | 4-Ball | 2:1 | 1/2 (12.7) | 1(25.4) | 650940-XXD-B | Hyd 2-Ball | .8:1 | 1/2 (12.7) | 1¼ (31.7) |
| AF0409AX1XX24-02 | 2-Ball | 9:1 | 1/2 (12.7) | 3/4 (19.0) | AF0603M11XXXX | 4-Ball | 3:1 | 1/2 (12.7) | 1(25.4) | 650943-XXX-B | Hyd 2-Ball | 1.7:1 | 3/8 (9.5) | 1(25.4) |
| AF0409CXXXXXX | 2-Ball | 9:1 | 1/2 (12.7) | 3/4 (19.0) | AF0604M11XXXX | 4-Ball | 4:1 | 1/2 (12.7) | 1(25.4) | 650944-XXX-B | Hyd 2-Ball | 3.3:1 | 3/8 (9.5) | 1(25.4) |
| AF0411G11XXXX | 2-Ball | 11:1 | 1/2 (12.7) | 1(25.4) | AF0805M11XXXX | 4-Ball | 5:1 | 3/4 (19.0) | 1(25.4) | 650949-X4X | Hyd 4-Ball | 3.3:1 | 3/8 (9.5) | 1(25.4) |
| AF0422G11XXXX | 2-Ball | 22:1 | 1/2 (12.7) | 1(25.4) | AF0807M11XXXX | 4-Ball | 7:1 | 3/4 (19.0) | 1(25.4) | 650950-X4X | Hyd 4-Ball | .2:1 | 3/8 (9.5) | 1(25.4) |
| AF0430G11XXXX | 2-Ball | 30:1 | 1/2 (12.7) | 1(25.4) | 650934-X43-C | Chop-Check | 2:1 | 3/8 (9.5) | 1(25.4) | 650941-XXE-C | Hyd Chop-Check | 1.2:1 | 1/2 (12.7) | 1½ (38.1) |
| AF0623G11XXXX | 2-Ball | 23:1 | 1/2 (12.7) | 1(25.4) | 650935-X43-C | Chop-Check | 3.6:1 | 3/8 (9.5) | 1(25.4) | AF0450LXXXXXX | Lube - Grease | 50:1 | 1/2 (12.7) | 1/2 (12.7) |
| AF0645G11XXXX | 2-Ball | 45:1 | 1/2 (12.7) | 1(25.4) | AF0412S11XXXX | Chop-Check | 12:1 | 1/2 (12.7) | 1(25.4) | AF0475LXXXXXX | Lube - Grease | 75:1 | 1/2 (12.7) | 1/2 (12.7) |
| AF0660G11XXXX | 2-Ball | 60:1 | 1/2 (12.7) | 1(25.4) | AF0423S11XXXX | Chop-Check | 23:1 | 1/2 (12.7) | 1(25.4) | AF0608LXXXXXX | Lube - Grease | 100:1 | 1/2 (12.7) | 1/2 (12.7) |
| AF0810X11XXXX | 2-Ball | 10:1 | 3/4 (19.0) | 1¼ (31.7) | AF0443X21XXXX | Chop-Check | 43:1 | 1/2 (12.7) | 1/2 (12.7) | LM2250E-XX-B | Lube - Grease | 50:1 | 1/4 (6.3) | 3/8 (9.5) |
| AF0828B11XXXX | 2-Ball | 28:1 | 3/4 (19.0) | 1(25.4) | AF0623S11XXXX | Chop-Check | 23:1 | 1/2 (12.7) | 1(25.4) | LM2350E-XX-B | Lube - Grease | 50:01:00 | 1/4 (6.3) | 3/8 (9.5) |
| AF0840G11XXXX | 2-Ball | 40:1 | 3/4 (19.0) | 1(25.4) | AF0646S11XXXX | Chop-Check | 46:1 | 1/2 (12.7) | 1(25.4) | 61204X-X | Lube - Oil | 1:1 | 1/4 (6.3) | 3/4 (19.0) |
| AF1015XXXXXX | 2-Ball | 15:1 | 3/4 (19.0) | 1¼ (31.7) | AF0665S11XXXX | Chop-Check | 65:1 | 1/2 (12.7) | 3/4 (19.0) | 65011X-X | Lube - Oil | 2:1 | 1/4 (6.3) | 1/2 (12.7) |
| AF1045B11XXXX | 2-Ball | 45:1 | 3/4 (19.0) | 1(25.4) | AF0813S11XXXX | Chop-Check | 13:1 | 3/4 (19.0) | 1½ (38.1) | AF0409AX3XXXXXXX | Lube - Oil | 9:1 | 1/2 (12.7) | 3/4 (19.0) |
| AF1223X1XXXX | 2-Ball | 23:1 | 3/4 (19.0) | 1¼ (31.7) | AF0828S11XXXX | Chop-Check | 28:1 | 3/4 (19.0) | 1¼ (31.7) | LM2203A-XX-C | Lube - Oil | 3:1 | 1/4 (6.3) | 1/2 (12.7) |
| AF1223X5XXXX | 2-Ball | 23:1 | 3/4 (19.0) | 1¼ (31.7) | AF0844S11XXXX | Chop-Check | 44:1 | 3/4 (19.0) | 1(25.4) | LM2305A-XX-B | Lube - Oil | 5:1 | 1/4 (6.3) | 1/2 (12.7) |
| AF1265B11XXXX | 2-Ball | 65:1 | 3/4 (19.0) | 1(25.4) | AF1020S11XXXX | Chop-Check | 20:1 | 3/4 (19.0) | 1½ (38.1) | | | | | |
| NM2202X-XX-B | 2-Ball | 2:1 | 1/4 (6.3) | 3/4 (19.0) | AF1044S11XXXX | Chop-Check | 44:1 | 3/4 (19.0) | 1¼ (31.7) | | | | | |

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Common Industrial Installation



Portable - Single Post Lifts

| Model | Description | Dimensions | Use With |
|--------------------|--|---|--|
| SINGLE-POST | | | |
| 67075-B | For use with 5-gallon pails containing fluids with viscosities up to 200,000 cPs. A needle valve allows the operator to control the speed at which the pump is raised and lowered. | Base: 26.593" (675.5 mm) x 27.5" 698.5 mm) | CL0443X2XXXXXXXXXX and NP322L0X0X |
| 67075-1-B | | Height: 42.921" (1090.2 mm) lowered | CL0409A9XXXXXXXXXX |
| 67425-1 | For use with 5-gallon pails containing fluids with viscosities up to 200,000 cPs. A needle valve allows the operator to control the speed at which the pump is raised and lowered. | Base: 21.844" (554.8mm) x 27-1/2" (698.5mm) Height: 41.947" (1065.4mm) lowered | Packages that include the RM051X-X-B Single Post 5 gallon ram |



67075-B



640067

Stationary - Single Post Lift

| Model | Description | Dimensions | Use With |
|--------------------|--|---|--|
| SINGLE-POST | | | |
| 640067 | For use with 55-gallon drums. Lift is bolted to floor. Support arms attach to drum cover. Lift is used to raise drum cover and bung-mounted pump. Use when pumping grease, oil and low-viscosity fluids. | Height (lowered): 55-1/2" (1409.7 mm) Height (raised): 92" (2336.8 mm) | <ul style="list-style-type: none"> All 55-gallon bung-type pumps 651852 or 66197 drum covers |



66554-2

Portable - Carts

| Model | Description | Use With |
|----------------|--|---|
| 66554-2 | • 24" to 30" wheel spacing adjustment; has 16" tires | <ul style="list-style-type: none"> 8", 10" and 12" air motor 2-ball pumps 8" air motor Integrity 2-ball pumps |
| 67139 | <ul style="list-style-type: none"> Will clear 28" openings Unique chair design distributes pump weight and makes moving easy 12" (305 mm) pneumatic tires also enhance smooth transport | <ul style="list-style-type: none"> 4-1/4" and 6" Integrity 2-ball pumps |



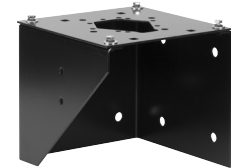
67139

Wall Mounts

| Model | Description | Use With |
|--------------|--|---|
| 61113 | <ul style="list-style-type: none"> • 2" NPT(F) opening to accept bung type pumps • Bracket slips over rim of open head drum or can be wall-mounted | <ul style="list-style-type: none"> • 612041-X, NM2202A-41-X, NM2202B-41-X, NM2304A-41-X, NM2304B-41-X, 650409-X and 650453-X |
| 66100 | <ul style="list-style-type: none"> • With 91395 removable mounting plate | <ul style="list-style-type: none"> • 4-1/4" air motor 4" stroke pumps |
| 66101 | <ul style="list-style-type: none"> • With 91396 removable mounting plate | <ul style="list-style-type: none"> • 4-1/4" and 6" air motor 2-ball and 4-ball pumps; including Integrity and Stinger models |
| 66542 | <ul style="list-style-type: none"> • With 92371 removable mounting plate | <ul style="list-style-type: none"> • 8", 10" and 12" air motor 2-ball pumps • 8" air motor Stinger 4-ball pumps |
| 76763 | <ul style="list-style-type: none"> • Open front permits easy installation of pump • Can be bolted to wall at back or side of bracket | <ul style="list-style-type: none"> • All "N" Series and 1/2" diaphragm pumps |



61113



66100



76763

Stationary - Mounting Post

| Model | Description | Use With |
|----------------|--|---|
| 67187-1 | <ul style="list-style-type: none"> • Floor stand pump mounting post | <ul style="list-style-type: none"> • 4-1/4", 6" and 8" air motors, except AF0828BXXXXXXXX-X and AF0810XXXXXXXX-X |



67187-1

Floor Mounts

| Model | Description | Use With |
|--------------|---|---|
| 65138 | <ul style="list-style-type: none"> • Accepts fluid line from bulk containers or mixing tanks • 3" NPT(F) inlet; 1/4" NPT(F) vent port with plug | <ul style="list-style-type: none"> • 4-1/4" and 6" air motor, 2-ball and extrusion pumps • 8" 40:1 2-ball and 44:1 extrusion pumps • Hydraulic: 0.8:1 and 3.3:1 2-ball; 2:1 and 3.6:1 chop-check pumps • Mounting footprint "A" |
| 65139 | <ul style="list-style-type: none"> • Accepts fluid line from bulk containers or mixing tanks • 3" NPT(F) inlet; 1/4" NPT(F) vent port with plug | <ul style="list-style-type: none"> • 8", 10", or 12" air motor, 2-ball and extrusion pumps • Hydraulic: 1.2:1 chop-check; 2.4:1 2-ball pumps • Mounting footprint "B" |



65139

Dollies

Hand
Trucks

16-Gallon Drum

Dollies

| Model | Description |
|------------------|--|
| 16-GALLON | |
| 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 |



640057



640058-2

Hand Trucks

| Model | Description |
|------------------|---|
| 16-GALLON | |
| 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 |



640062



640149

Rams

Single Post, for 5 gallon containers Two-Post, for 5 and 55 gallon containers

(RAMS ONLY, FOLLOWER PLATES NOT INCLUDED)

Single post or two post mounts for lifting/lowering pump with follower plate into/out of 5-gallon or 55 gallon containers.

Integrated control options for ram only or ram and pump. Controls include pump air filter/regulator with gauge, pump lock-out valve, lift and ram air regulator with gauge, air supply for follower plate.



RM051S-C-B



RM052S-C



RM552S-C

| Model | Container Suitability (gal) | Posts | Basic Controls (ram only) | Advanced Controls (pump & ram) | Heavy Duty Cylinders | Base Dimensions | Height Lowered - Raised |
|------------|-----------------------------|-------|---------------------------|--------------------------------|----------------------|---|--|
| RM051S-B-B | 5 | 1 | x | | | 15" x 19" (381 mm x 482.6 mm) | 42.759" (1086.1mm) - 67.759 (1721.0 mm) |
| RM051S-C-B | 5 | 1 | | x | | | |
| RM052S-B | 5 | 2 | x | | | 19.75" (501.65mm) x 24.00" (609.6mm) | 35.61" (904.5mm) - 53.404" (1356.4 mm) |
| RM052S-C | 5 | 2 | | x | | | |
| RM552S-B | 55 | 2 | x | | | 24.00" (609.6 mm) x 42.782" (1086.7 mm) | 61.465" (11561.2mm) - 99.215" (2520.1mm) |
| RM552S-C | 55 | 2 | | x | | | |
| RM552H-B | 55 | 2 | x | | x | | |
| RM552H-C | 55 | 2 | | x | x | | |

See follower plate pages for ram and follower plate packages overview.

Mounting Configuration

Follower plates seal the container and direct fluid toward the pump inlet. Pumps mount directly to the follower plate, which are sized for 5-gallon or 55-gallon containers. Follower plates with single-lip seals are designed for fluid viscosities up to 300,000 cPs. Use double-lip seals for viscosities over 300,000 cPs. Tube-type seals are also available for applications using 55-gallon drums.

Mounting Configurations

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories (i.e., a pump with an "A" mounting footprint will fit any accessory with an "A" mounting footprint).



Footprint A

Footprint used on 5-gallon follower plates, 55-gallon follower plates and 65138 mounting pedestal.

- Footprint matches the bolt configuration of flange inlet of chop-check lower ends.
- Footprint matches 67136 plate adapter for 2-ball pumps.



Footprint B

Footprint used on 55-gallon follower plates and mounting 67139 pedestal.

- Footprint matches the bolt configuration of flange inlet of chop-check lower ends.
- Footprint matches inlet for some large displacement 2-ball pumps.



Footprint C and D

Footprint fits 5-gallon pails, used with lifts and single-post rams.

- "C" designates slip-on connection to lower end.
- "D" designates 2" NPTF threads for use with Integrity style 2-ball lower ends.

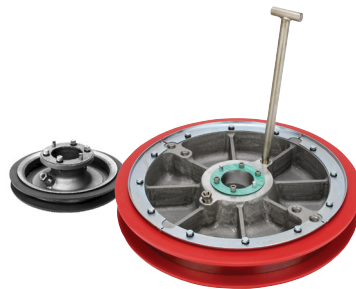
Types of Follower Plates

ARO® offers several types of follower plates for use with 5-gallon pails and 55-gallon drums. Standard, or flat, follower plates are used where fluid viscosities reach 500,000 to 750,000 cPs. High-viscosity, or tapered, follower plates are used where fluid viscosities that exceed 750,000 cPs.



Flat, Single-Lip Follower Plates

For 5-gallon pails and 55-gallon drums



Flat, Double-Lip Follower Plates

For 5-gallon pails and 55-gallon drums



Tapered, Tube-Type Follower Plates

For 55-gallon drums

5-Gallon Containers

Mounting footprint is strictly a reference letter used to simplify the matching of pumps to follower plates and related accessories. For example, a pump with an "A" mounting footprint will fit any accessory with an "A" mounting footprint.

| Follower ASM | Pump Size | Follower Plate Material | Seal Type | Seal Material | Seal Diameter | Used With | Ram Model # Coding | Modular Design* | |
|--------------|------------------------|--|-------------|------------------------------------|-----------------------|---|--------------------------|--------------------------|--|
| 67347-2 | Standard Footprint "A" | Aluminum | Single Tube | EPR | 11.440" (290.6 mm) | RM051S-XXX-XX-B (Single Post) RM052S-XXX-X (Two Post)" | RM05XS-XXA- A7 -B | | |
| 67347-1 | | | | Nitrile | | | RM05XS-XXA- A8 -B | | |
| 67347-12 | | | | Aluminum with PTFE Coating | | | EPR | RM05XS-XXA- T7 -B | |
| 67347-11 | | | | | | | Nitrile | RM05XS-XXA- T8 -B | |
| 67485-2 | | Carbon Steel, Electroless Nickel Coating | Single Lip | Nitrile / Polyethylene | 11.614" (295.0 mm) | | RM05XS-XXA- E1 -B | Y | |
| 67485-1 | | | | Polyurethane / Polyethylene | 11.437" (290.5 mm) | | RM05XS-XXA- E3 -B | Y | |
| 67485-3 | | | | Nitrile / Polyethylene | 12.281" (311.9 mm) | | RM05XS-XXA- E5 -B | Y | |
| 66732-1 | | | Double Lip | Polyurethane | 11.609" (294.9 mm) | | RM05XS-XXA- EA -B | | |
| 66732-2 | | | | EPR | | | RM05XS-XXA- EB -B | | |
| 66732 | | | | Nitrile | | | RM05XS-XXA- EC -B | | |
| 67486-2 | Slip-On "C" | Carbon Steel, Electroless Nickel Coating | Single Lip | Nitrile / Polyethylene | 11.614" (295.0 mm) | RM05XS-XXC- E1 -B | Y | | |
| 67486-1 | | | | Polyurethane / Polyethylene | 11.437" (290.5 mm) | RM05XS-XXC- E3 -B | Y | | |
| 67486-3 | | | | Nitrile / Polyethylene | 12.281" (311.9 mm) | RM05XS-XXC- E5 -B | Y | | |
| 66731-1 | | | Double Lip | Polyurethane | 11.609" (294.9 mm) | RM05XS-XXC- EA -B | | | |
| 66731-2 | | | | EPR | | RM05XS-XXC- EB -B | | | |
| 66731 | | | | Nitrile | | RM05XS-XXC- EC -B | | | |
| 67487-1 | | Stainless Steel | Single Lip | PTFE Coated Nitrile / Polyethylene | 11.437" (290.5 mm) | RM05XS-XXC- S2 -B | Y | | |
| 67518-1 | | | | PTFE Coated Nitrile / Polyethylene | | RM05XS-XXD- S2 -B | Y | | |

*Modular design: backup ring can be manipulated or removed to fit various 5 gallon pail diameters and types (tapered, straight)



55-Gallon Containers

| Follower ASM | Pump Size | Follower Type | Follower Plate Material | Seal Type | Seal Material | Used With | Ram Model # Coding | |
|--------------|----------------------|-----------------------|----------------------------|-----------------------|---------------|--|-----------------------|-----------------------|
| 66516-1 | Standard Footprint | Flat | Aluminum | Double Up | Polyurethane | RM552H-XXX-XX (Two Post, Heavy Duty) RM552S-XXX-XX (Two Post, Standard) | RM552X-XXX- AA | |
| 66516-2 | | | | | EPR | | RM552X-XXX- AB | |
| 66516 | | | | | Nitrile | | RM552X-XXX- AC | |
| 67195-1 | | | | | Neoprene | | RM552X-XXX- AM | |
| 67195-2 | | EPR | | RM552X-XXX- AN | | | | |
| 67195-8 | | Neoprene, Reduced OD | | RM552X-XXX- AS | | | | |
| 67195-3 | | Viton | | RM552X-XXX- AV | | | | |
| 67516-1 | | Neoprene | | RM552X-XXX- AE | | | | |
| 67516-2 | | EPR | RM552X-XXX- AF | | | | | |
| 67516-8 | | Neoprene, Reduced OD | RM552X-XXX- AH | | | | | |
| 67516-3 | | Viton | RM552X-XXX- AJ | | | | | |
| 66516-6 | | Flat | Aluminum with PTFE Coating | Double Up | Polyurethane | | RM552X-XXX- TA | |
| 66516-7 | | | | | EPR | | RM552X-XXX- TB | |
| 66516-5 | | | | | Nitrile | | RM552X-XXX- TC | |
| 67195-5 | | | | | Neoprene | | RM552X-XXX- TM | |
| 67195-6 | | | EPR | RM552X-XXX- TN | | | | |
| 67195-9 | | | Neoprene, Reduced OD | RM552X-XXX- TS | | | | |
| 67195-7 | | | Viton | RM552X-XXX- TV | | | | |
| 67516-5 | | | Neoprene | RM552X-XXX- TE | | | | |
| 67516-6 | | | EPR | RM552X-XXX- TF | | | | |
| 67516-9 | | | Neoprene, Reduced OD | RM552X-XXX- TH | | | | |
| 67516-7 | | | Viton | RM552X-XXX- TJ | | | | |
| 66517-1 | | | Large Footprint | Flat | Aluminum | | Double Up | Polyurethane |
| 66517-2 | | EPR | | | | | | RM552X-XXB- AB |
| 66517 | | Nitrile | | | | | | RM552X-XXB- AC |
| 67196-1 | | Neoprene | | | | | | RM552X-XXB- AM |
| 67196-2 | | EPR | | RM552X-XXB- AN | | | | |
| 67196-8 | | Neoprene, Reduced OD | | RM552X-XXB- AS | | | | |
| 67196-3 | Viton | RM552X-XXB- AV | | | | | | |
| 67515-1 | Neoprene | RM552X-XXB- AE | | | | | | |
| 67515-2 | EPR | RM552X-XXB- AF | | | | | | |
| 67515-8 | Neoprene, Reduced OD | RM552X-XXB- AH | | | | | | |
| 67515-3 | Viton | RM552X-XXB- AJ | | | | | | |

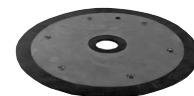
55-Gallon Containers (continued from page 9)

| Follower ASM | Pump Size | Follower Type | Follower Plate Material | Seal Type | Seal Material | Used With | Ram Model # Coding | |
|--------------|-----------------|---------------------------------|----------------------------|----------------------------|----------------------|---|-----------------------|--------------|
| 66517-6 | Large Footprint | Flat | Aluminum with PTFE Coating | Double Lip | Polyurethane | RM552H-XXX-XX (Two Post, Heavy Duty) | RM552X-XXB- TA | |
| 66517-7 | | | | | EPR | | RM552X-XXB- TB | |
| 66517-5 | | | | | Nitrile | | RM552X-XXB- TC | |
| 67196-5 | | Tapered | | Double Tube | Neoprene | | RM552X-XXB- TM | |
| 67196-6 | | | | | EPR | | RM552X-XXB- TN | |
| 67196-9 | | | | | Neoprene, Reduced OD | | RM552X-XXB- TS | |
| 67196-7 | | | | | Viton | | RM552X-XXB- TV | |
| 67515-5 | | | | | Neoprene | | RM552X-XXB- TE | |
| 67515-6 | | | | | EPR | | RM552X-XXB- TF | |
| 67515-9 | | Neoprene, Reduced OD | | RM552X-XXB- TH | | | | |
| 67515-7 | | Viton | | RM552X-XXB- TJ | | | | |
| 67409-1 | | Large Footprint with ball valve | | Flat | Aluminum | | Double Lip | Polyurethane |
| 67409-2 | EPR | | RM552X-XXE- AB | | | | | |
| 67409 | Nitrile | | RM552X-XXE- AC | | | | | |
| 67410-1 | Tapered | | Double Tube | Neoprene | | RM552X-XXE- AM | | |
| 67410-2 | | | | EPR | | RM552X-XXE- AN | | |
| 67410-8 | | | | Neoprene, Reduced OD | | RM552X-XXE- AS | | |
| 67410-3 | Flat | | Double Lip | Aluminum with PTFE Coating | | Polyurethane | RM552X-XXE- TA | |
| 67409-6 | | | | | | EPR | RM552X-XXE- TB | |
| 67409-7 | | | | | | Nitrile | RM552X-XXE- TC | |
| 67409-5 | | | | | | Neoprene | RM552X-XXE- TM | |
| 67410-5 | | | | | | EPR | RM552X-XXE- TN | |
| 67410-6 | | | | | | Neoprene, Reduced OD | RM552X-XXE- TS | |
| 67410-9 | Tapered | | Double Tube | Neoprene, Reduced OD | | RM552X-XXE- TS | | |
| 67410-7 | | | | Viton | | RM552X-XXE- TV | | |

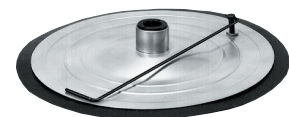
Lubrication

Follower Plates

| Model | Wiper seal material | OD of pump tube to be fitted in (mm) | For use with |
|---|---------------------|--------------------------------------|----------------------------|
| 35-LB TAPERED PAIL (FITS 10" – 11" ID DRUMS) | | | |
| 640095-1-B | Rubber | 1" (25) | Thunder Series 60:1 |
| 640095-2-B | Rubber | 1-1/2" (38) | LM2250E-21-B, LM2350E-21-B |
| 120-LB DRUM (FITS 13" – 14" ID DRUMS) | | | |
| 640027 | Buna-N | 2" (51) | Hand pumps |
| 640152 | Buna-N | 1-7/8" (48) | 425 Series, 50:1 |
| 640152-1 | Buna-N | 2-1/8" (54) | 600 Series, 100:1 |
| 640165 | Buna-N | 1-1/2" (38) | LM2250E-31-B, LM2350E-31-B |
| 400-LB DRUM (FITS 20" – 23" ID DRUMS) | | | |
| 640015-2 | Buna-N | 1-7/8" (48) | 425 Series, 50:1 |
| 640015-5 | Buna-N | 2-1/8" (54) | 600 Series, 100:1 |
| 640015-1 | Buna-N | 1-1/2" (38) | LM2250E-41-B, LM2350E-41-B |



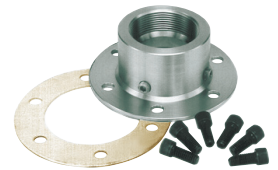
640095-2-B



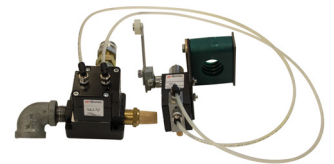
640015-1

Follower Plate Accessories

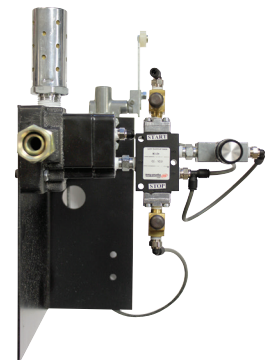
| Part Number | Description |
|------------------------------|---|
| 91363-10 | SEAL PROTECTORS |
| Features: | <ul style="list-style-type: none"> • Seals fit between follower plate and material to prevent corrosive fluids from attacking the follower plate wiper • Reduces clean-up time, sold in packages of 10 • Made of low-density polyethylene, 0.010" – 0.015" thick |
| Used With: | • 55-gallon follower plates |
| 67136 | FOLLOWER PLATE ADAPTER |
| Features: | <ul style="list-style-type: none"> • For attaching Integrity 2-ball pumps to follower plates or 67138 floor mount; includes stainless steel adapter with 2" NPT (F) threads, seal, and hardware • Mounting footprint A |
| Used With: | <ul style="list-style-type: none"> • 651616-1,-2,-3 two-post rams • 66248 and 66516 follower plates • 65138 floor mount |
| 67134 | FOLLOWER PLATE ADAPTER |
| Features: | • For attaching NM2322X- (22:1) and 6712X-X (43:1) ratio models |
| Used With: | <ul style="list-style-type: none"> • 55-gallon follower plates and 67138 floor mount • Mounting footprint A |
| 90552 | GASKET |
| Features: | • Fits between follower plate and inlet of pump |
| Used With: | <ul style="list-style-type: none"> • 67136 follower plate adapter • Chop-check pumps that have footprint A style flange inlets |
| 92339 | GASKET |
| Features: | • Fits between follower plate and inlet of pump |
| Used With: | • Chop-check pumps that have footprint B style flange inlets |
| 67517 | DRUM STOPS |
| Features: | • Attaches to ram base plate to ensure proper drum placement |
| Used With: | • RM552X-X |
| LOW LEVEL CUTOFF KITS | |
| Features: | • Kits are mounted on ram, prevent pump from running dry by shutting off air supply when material level is low. |
| 67500 | Used With: RM052S-XXX-XX |
| 67501 | Used With: RM552S-XXX-XX / RM552H-XXX-XX |
| 67502 | Used With: RM051S-XXX-XX-B |
| DRUM HOLD DOWN KIT | |
| Features: | • Keeps drum from lifting when removing pump/follower |
| 67503 | Used With: RM552S-X |
| 67504 | Used With: RM552H-X |
| CROSSOVER KITS | |
| Features: | • Shifts pump operation from one pump and ram package to another, to keep process moving without interruption while material containers are changed |
| 67448 | Used With: RM052X-X, RM552X-X |
| 67449 | Used With: RM051X-X |



67136



67500



67448

Industrial Drum Covers

| Part Number | Description |
|-----------------------|--|
| 66971 | DRUM COVER |
| Features | • Stainless steel, accepts 651100 agitator |
| Used With | • 1/2" ports diaphragm pump |
| Container Size | • 5 gallon |
| 66197 | DRUM COVER |
| Features | • Includes hinged access covers, 2" NPT(F) bung opening, and will accept 651104-1 agitator • Carbon steel |
| Used With | • 2", 3" and 4-1/4" 55-gal bung-type pumps |
| Container Size | • 55 gallon |
| 651852 | DRUM COVER AND AGITATOR PACKAGE |
| Features | • Includes hinged access covers, 2" NPT(F) bung opening, 2" x 34" pipe extension and 60307-1 agitator • Carbon steel |
| Used With | • Accepts 65986-1 siphon hose from any wall-mounted pump; any 55-gallon bung-type pump that can be used with 640067 lift |
| Container Size | • 55 gallon |



66971



651852

Lubrication Drum Covers

| Model | Description | For use with |
|-----------------------------|--|---|
| 5 GAL / 35-LB PAIL | | |
| 94420 | Has 2" (50.8 mm) NPT (F) bung opening and three hold-down screws (fits 10.23" – 12", 259.8 mm – 304.8 mm OD drums) | Thunder Series 5-gal (18.9 L) bung pumps |
| 16 GAL / 120-LB DRUM | | |
| 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) | Thunder Series 16-gal / 120 lb (60.6 L / 54.4 kg) bung pumps |
| 55 GAL / 400-LB DRUM | | |
| 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) | 200 Series and 425 Series, 55-gal / 400-lb (208.1 L / 181.4 kg) bung-type |
| 94422 | Has 2" (50.8 m) 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

**Tie-Down
Rods**

Tie-Down Rods

Cover Tie-down Rods

| Model | Description | For use with |
|-----------------------------|---|---|
| 16-GAL / 120-LB DRUM | | |
| 640164 | Tie-down bracket kit fixes / holds down drum cover. Includes brackets, rods, mounting hardware. Use with 94421 Cover. | Thunder Series pumps. |
| 640091 | Set of two tie-down rods and mounting brackets. Use with 66492 Cover. | Series 200 and 425, 16-gal / 120-lb (60.6 L / 54.4 kg) drum covers |
| 55-GAL / 400-LB DRUM | | |
| 71027-1 | Set of two tie-down rods and mounting brackets. Use with 71060 cover. | Thunder Series, also 200 and 425 Series, 55-gal / 400-lb (208.1 L / 181.4 kg) drum covers |



**Bung
Adapters**

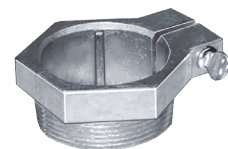
Adapters and Kits

Bung Adapters

| Model | Description | For use with |
|-------------------------------|--|--|
| 60870 | 2" (50.8 mm) (M) for use with 2-1/8" (57.1 mm) siphon tube | 200 Series, 1:1 ratio immersed pumps 425 Series, 9:1 ratio immersed pumps |
| 67145-3-B | 2" (50.8 mm) (M) | Thunder Series, 3:1 oil pumps |
| 67145-4-B | 2" (50.8 mm) (M) | Thunder Series, 5:1 oil pumps |
| 4148 | 2" (50.8 mm) (M) for use with 1-7/8" (47.6 mm) siphon tube | 425 Series, 50:1 ratio grease pumps |
| 67145-2 | 2" (50.8 mm) (M) | Thunder Series, 50:1 grease pumps |
| BUNG ADAPTER SEAL KITS | | |
| 67088-3 | Water-tight seal kit includes 67145-3 bung adapter and 67088 seal kit | Thunder Series 3:1 oil pumps |
| 67088-4 | Same as above, except includes 67145-4 bung adapter and 67088 seal kit | Thunder Series 5:1 oil pumps |
| 67088 | Water-tight seal for use outdoors | Thunder Series |



67145-X



67145-3-B

Fluid Pressure Regulators

Ingersoll Rand / ARO® I.D.L.® (Improved Design Line) Fluid Regulators feature smooth, consistent pressure regulation with easy-turn adjustment. Patented easy-access seat plug permits immediate service access to the regulator's ball and seat. Patented "floating" ball and seat design maintains proper regulation, even during significant fluctuations in line pressure.



3/8" Ports
(651780-A1A-B)



3/4" Ports
(651780-C1C-B)



3/8" Ports,
Remote Regulator
(651780-B1R-B)

Downstream Regulators - High Pressure

| Model | Regulated Pressure Range psi (bar) | Maximum Inlet Pressure psi (bar) | Port Size | Housing Base | Seat | Gauge |
|--------------|------------------------------------|----------------------------------|-----------|----------------------|------------------|-------|
| 651780-A1A-B | 400 – 1,250 (27.6 – 86.2) | 3,000 (206.9) | 3/8" | Carbon steel | Tungsten carbide | No |
| 651780-A1B-B | 1,000 – 3,000 (69.0 – 206.9) | 6,000 (413.8) | 3/8" | Carbon steel | Tungsten carbide | No |
| 651780-A3A-B | 400 – 1,250 (27.6 – 86.2) | 3,000 (206.9) | 3/8" | 300 Series stainless | Tungsten carbide | No |
| 651780-A3B-B | 1,000 – 3,000 (69.0 – 206.9) | 6,000 (413.8) | 3/8" | 300 Series stainless | Tungsten carbide | No |
| 651780-B1A-B | 400 – 1,250 (27.6 – 86.2) | 3,000 (206.9) | 3/8" | Carbon steel | Tungsten carbide | No |
| 651780-B1B-B | 1,000 – 3,000 (69 – 206.9) | 6,000 (413.8) | 3/8" | Carbon steel | Tungsten carbide | No |
| 651780-B1R-B | 400 – 5,000 (27.6 – 344.8) | 6,000 (413.8) | 3/8" | Carbon steel | Tungsten carbide | No |
| 651780-B3A-B | 400 – 1,250 (27.6 – 86.2) | 3,000 (206.9) | 3/8" | 300 Series stainless | Tungsten carbide | No |
| 651780-B3B-B | 1,000 – 3,000 (69 – 206.9) | 6,000 (413.8) | 3/8" | 300 Series stainless | Tungsten carbide | No |
| 651780-B3R-B | 400 – 5,000 (27.6 – 344.8) | 6,000 (413.8) | 3/8" | 300 Series stainless | Tungsten carbide | No |
| 651780-C1B-B | 750 – 2,500 (51.7 – 172.4) | 6,000 (413.8) | 3/4" | Carbon steel | Tungsten carbide | No |
| 651780-C1C-B | 2,000 – 5,000 (137.9 – 344.8) | 6,000 (413.8) | 3/4" | Carbon steel | Tungsten carbide | No |
| 651780-C1R-B | 750 – 5,000 (51.7 – 344.8) | 6,000 (413.8) | 3/4" | Carbon steel | Tungsten carbide | No |
| 651780-C3B-B | 750 – 2,500 (51.7 – 172.4) | 6,000 (413.8) | 3/4" | 300 Series stainless | Tungsten carbide | No |
| 651780-C3R-B | 750 – 5,000 (51.7 – 344.8) | 6,000 (413.8) | 3/4" | 300 Series stainless | Tungsten carbide | No |

Downstream Regulators - Low Pressure

| Model | Regulated Pressure Range psi (bar) | Maximum Inlet Pressure psi (bar) | Port Size | Housing Base | Seat | Gauge | Pressure Range psi (bar) |
|--------------|------------------------------------|----------------------------------|-----------|----------------------|----------------------|----------|--------------------------|
| 651790-A1B-B | 5 – 30 (0.3 – 2.1) | 750 (51.7) | 3/8" | Zinc | Tungsten carbide | 93656-1 | 0 – 60 (0 – 4) |
| 651790-A1C-B | 20 – 60 (1.4 – 4.1) | 750 (51.7) | 3/8" | Zinc | Tungsten carbide | 93656-1 | 0 – 60 (0 – 4) |
| 651790-A1D-B | 50 – 200 (3.4 – 13.8) | 750 (51.7) | 3/8" | Zinc | Tungsten carbide | 93887 | 0 – 300 (0 – 20) |
| 651790-A1R-B | 30 – 200 (2.1 – 13.8) | 750 (51.7) | 3/8" | Zinc | Tungsten carbide | No gauge | N/A |
| 651790-A3B-B | 5 – 30 (0.3 – 2.1) | 750 (51.7) | 3/8" | 300 Series stainless | Tungsten carbide | 93657-1 | 0 – 60 (0 – 4) |
| 651790-A3C-B | 20 – 60 (1.4 – 4.1) | 750 (51.7) | 3/8" | 300 Series stainless | Tungsten carbide | 93657-1 | 0 – 60 (0 – 4) |
| 651790-A3D-B | 50 – 200 (3.4 – 13.8) | 750 (51.7) | 3/8" | 300 Series stainless | Tungsten carbide | 93888 | 0 – 300 (0 – 20) |
| 651790-A3R-B | 30 – 200 (2.1 – 13.8) | 750 (51.7) | 3/8" | 300 Series stainless | Tungsten carbide | No gauge | N/A |
| 651790-A4B-B | 5 – 30 (0.3 – 2.1) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | 93657-1 | 0 – 60 (0 – 4) |
| 651790-A4C-B | 20 – 60 (1.4 – 4.1) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | 93657-1 | 0 – 60 (0 – 4) |
| 651790-A4D-B | 50 – 200 (3.4 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | 93888 | 0 – 300 (0 – 20) |
| 651790-A4R-B | 30 – 200 (2.1 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | No gauge | N/A |
| 651790-B1C-B | 20 – 60 (1.4 – 4.1) | 750 (51.7) | 3/8" | Zinc | Tungsten carbide | 93656-1 | 0 – 60 (0 – 4) |
| 651790-B1D-B | 30 – 200 (2.1 – 13.8) | 1,250 (86.2) | 3/8" | Zinc | Tungsten carbide | 93887 | 0 – 300 (0 – 20) |
| 651790-B1E-B | 100 – 800 (6.9 – 55.2) | 800 (55.2) | 3/8" | Zinc | Tungsten carbide | 93503-1 | 0 – 1,000 (0 – 70) |
| 651790-B1R-B | 30 – 200 (2.1 – 13.8) | 500 (34.5) | 3/8" | Zinc | Tungsten carbide | No gauge | N/A |
| 651790-B2E-B | 100 – 800 (6.9 – 55.2) | 800 (55.2) | 3/8" | 300 Series stainless | 400 Series stainless | 93504-1 | 0 – 1,000 (0 – 70) |
| 651790-B3D-B | 30 – 200 (2.1 – 13.8) | 1,250 (86.2) | 3/8" | 300 Series stainless | Tungsten carbide | 93888 | 0 – 300 (0 – 20) |
| 651790-B3E-B | 100 – 800 (6.9 – 55.2) | 1,250 (86.2) | 3/8" | 300 Series stainless | Tungsten carbide | 93504-1 | 0 – 1,000 (0 – 70) |
| 651790-B4D-B | 30 – 200 (2.1 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | 93888 | 0 – 300 (0 – 20) |
| 651790-B4E-B | 100 – 800 (6.9 – 55.2) | 1,250 (86.2) | 3/8" | 300 Series stainless | 300 Series stainless | 93504-1 | 0 – 1,000 (0 – 70) |
| 651790-B4R-B | 30 – 200 (2.1 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | No gauge | N/A |
| 651790-B5R-B | 30 – 200 (2.1 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | No gauge | N/A |



3/8" Ports,
Standard Flow
for 651790-A3D-B



3/8" Ports,
Standard Flow, Remote
Model
for 651790-A3R-B

1/4" Ports

| Model | Regulated Pressure Range psi (bar) | Maximum Inlet Pressure psi (bar) | Port Size | Housing Base | Seat |
|-----------|------------------------------------|----------------------------------|-----------|--------------|------------------|
| 27520-000 | 5 – 125 (0.3 – 8.5) | 750 (51.7) | 1/4" | Zinc | Tungsten carbide |
| 27520-100 | 0 – 50 (0 – 3.4) | 750 (51.7) | 1/4" | Zinc | Tungsten carbide |
| 27520-200 | 10 – 250 (0.6 – 17.1) | 750 (51.7) | 1/4" | Zinc | Tungsten carbide |
| 27520-400 | 0 – 30 (0 – 2.0) | 750 (51.7) | 1/4" | Zinc | Tungsten carbide |



27520-200

Back Pressure Regulators

| Model | Regulated Pressure Range psi (bar) | Maximum Inlet Pressure psi (bar) | Port Size | Housing Base | Seat | Gauge | Pressure Range psi (bar) |
|--------------|------------------------------------|----------------------------------|-----------|-----------------------|----------------------|---------|--------------------------|
| 651781-B1B-B | 100 – 3,000 (6.9 – 206.9) | 3,000 (206.9) | 3/8" | Carbon steel | Tungsten carbide | No | |
| 651781-B3B-B | 100 – 3,000 (6.9 – 206.9) | 3,000 (206.9) | 3/8" | 300 Series stainless | Tungsten carbide | No | |
| 651781-C1B-B | 100 – 3,000 (6.9 – 206.9) | 3,000 (206.9) | 3/4" | Carbon steel | Tungsten carbide | No | |
| 651781-C3B-B | 100 – 3,000 (6.9 – 206.9) | 3,000 (206.9) | 3/4" | 300 Series stainless | Tungsten carbide | No | |
| 651791-B1D-B | 0 – 200 (0 – 13.8) | 1,250 (86.2) | 3/8" | Zinc carbide | Tungsten | 93887 | 0 – 300 (0 – 20) |
| 651791-B1E-B | 0 – 800 (0 – 55.2) | 800 (55.2) | 3/8" | Zinc | Tungsten carbide | 93503-1 | 0 – 1,000 (0 – 70) |
| 651791-B3D-B | 0 – 200 (0 – 13.8) | 1,250 (86.2) | 3/8" | 300 Series stainless | Tungsten carbide | 93888 | 0 – 300 (0 – 20) |
| 651791-B3E-B | 0 – 800 (0 – 55.2) | 1,250 (86.2) | 3/8" | 300 Series stainless | Tungsten carbide | 93504-1 | 0 – 1,000 (0 – 70) |
| 651791-B4D-B | 0 – 200 (0 – 13.8) | 500 (34.5) | 3/8" | 300 Series stainless | 300 Series stainless | 93888 | 0 – 300 (0 – 20) |
| 651791-C3D-B | 0 – 200 (0 – 13.8) | 200 (13.8) | 1-1/4" | 300 Series stainless | Tungsten carbide | 93888 | 0 – 300 (0 – 20) |
| 651791-C4D-B | 0 – 200 (0 – 13.8) | 200 (13.8) | 1-1/4" | 30.0 Series stainless | 300 Series stainless | 93888 | 0 – 300 (0 – 20) |



(651781-B1B-B)

1-1/4" Ports
(651791-B1E-B)

Mounting Bracket

| Part Number | Description |
|-------------------|--|
| 94806 | MOUNTING BRACKET |
| Features: | <ul style="list-style-type: none"> • Permits wall-mounting of I.D.L. downstream and back pressure fluid regulators • Use of mounting bracket alleviates strain on plumbing system from weight of fluid and regulator |
| Used With: | <ul style="list-style-type: none"> • 651780-XXX-B, 651790-XXX-B and 651791-XXX-B regulators, less remote models |



High and Low Pressure

Low-Pressure Gauges

| Model | Material | Maximum Gauge Pressure psi (bar) | Thread Size | Used With |
|---------|-------------------|----------------------------------|-------------|---|
| 29975 | Brass or aluminum | 160 (11) | 1/8" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |
| 29882 | Brass or aluminum | 60 (4) | 1/8" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |
| 29883 | Brass or aluminum | 160 (11) | 1/8" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |
| 100067 | Brass or aluminum | 160 (11) | 1/4" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |
| 100083 | Brass or aluminum | 300 (21) | 1/4" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |
| 93504-1 | Stainless steel | 0 – 1,000 (0 – 70) | 1/4" (M) | 651780-X-B, 651781-X-B, 651790-X-B, and 651791-X-B regulators |

High-Pressure Gauges

| Model | Material | Maximum Gauge Pressure psi (bar) | Thread Size | Used With |
|---------|-----------------------------------|----------------------------------|-------------|---|
| 93505-1 | Rear-mounted, non-stainless steel | 0 – 3,000 (0 – 204) | 1/4" (M) | Required when attaching gauge to 651780-X-B and 651781-X-B high-pressure fluid regulators |
| 93506-1 | Rear-mounted, stainless steel | 0 – 3,000 (0 – 204) | 1/4" (M) | Required when attaching gauge to 651780-X-B and 651781-X-B high-pressure fluid regulators |

High-Pressure Gauge Adapters

| Model | Port Size | Type | Used With |
|-------|-----------|-------------------|--|
| 92968 | 3/8" | Dual-outlet ports | Required when attaching gauge to 651780-X-B and 651781-X-B high-pressure fluid regulators, when using the 93505-1 and 93506-1 gauges |



Extrusion

Manual Extrusion Guns

| Model Number | Description | Max Fluid Pressure psi (bar) | Fluid Inlet in | Fluid Outlet I.D. & Thread in (mm) |
|--------------|---|------------------------------|----------------|------------------------------------|
| 651500 | Flow Gun: Aluminum body with tungsten carbide seats. Order 66541-XX Extrusion Nozzle Kit separately. Used to extrude material over 200,000 cPs. | 7500 (517) | 3/8" (F) | 1/4" (6) & 11/16-16 (M) |
| 651533 | Flow Gun: Wetted parts of 316 series stainless steel with tungsten carbide seats. Order 66541-XX Extrusion Nozzle Kit separately. | 5000 (345) | 1/4" NPS(M) | 15/16" (2.3) & 11/16-16 (M) |
| 641523-1 | Flow Gun: Wetted parts of 300 Series stainless steel with Teflon packings. Order 76751 Adapter and 66541-XX Extrusion Nozzle Kit separately. | 3000 (207) | 3/8" (F) | 1/4" (6) & 1/4" NPT(F) |



651533



641523-1

(Shown with 66541-XX)

Automatic Extrusion Guns

| Model Number | Description | Max Working Pressure psi (bar) | Material Inlet Size in (mm) | Material Outlet Size in (mm) | Air Inlet Size in (mm) | Min Air Pressure Required psi (bar) |
|--------------|---|--------------------------------|-----------------------------|------------------------------|----------------------------|---|
| 651511 | Flow Gun: Requires 4-way air valve to open and close. Adjusting screw varies stroke length. Secures to 1/2" diameter rod by Allen screw. Aluminum body with tungsten carbide seats. Order 66541-XX Extrusion Nozzle Kit separately. | 5,000 (345) | 3/8 (9.5) NPT (F) (2) | 11/16 - 16 UN-2A (17.4) | (2) 1/8 (3.1) NPT (F) | 50 (3.4) at 2000 PSI (138 bar) fluid pressure |
| 651513-11-B | Flow Gun: Has air open, spring return actuator. Requires 3-way air valve to open. Adjusting screw varies stroke length. Secures to 1/2" diameter rod by Allen screw. 316 stainless steel body with tungsten carbide seat. Order 66541-XX Extrusion Nozzle Kit separately. | 5,000 (345) | 1/4 - 18 (6.3) NPS (M) | 11/16 - 16 (17.4) (M) | 1/8 - 27 (3.1) NPT (F) -1 | 50 (3.4) at 2000 PSI (138 bar) fluid pressure |
| 651536-1 | Snuff-Back Gun: High flow automatic dispensing gun is designed to handle high-viscosity materials. Requires a 4-way air valve to open and close. | 5,000 (345) | 3/8 - 18 (9.5) NPT (F) | 1/4 - 18 (6.3) NPT (F) | (2) 1/8 - 27 (3.1) NPT (F) | 50 (3.4) at 2000 PSI (138 bar) fluid pressure |
| 651537-1 | Flow Gun: Similar to 651511 except with carbon-steel body and tungsten carbide ball and seat. | 5,000 (345) | (2) 3/8 (9.5) NPT (F) | 3/8 - 18 (9.5) NPT (F) | (2) 1/8 - 27 (3.1) NPT (F) | 50 (3.4) at 2000 PSI (138 bar) fluid pressure |



651511



651513



651500

Extrusion Gun Nozzle Kits

| Model Number in (mm) | Orifice Diameter in (mm) | Model Number | Orifice Diameter in (mm) | Model Number | Orifice Diameter in (mm) |
|----------------------|--|--------------|--------------------------|--------------|--------------------------|
| 76751 | Adapter: 1/4 NPT (M) to 11/16-16 (M) adapts 66541-XX Extrusion Nozzle Kit to fluid outlet for 641523-1 Flow Gun. | | | | |
| 66541-XX | Extrusion Nozzle Kit: Used on manual or automatic extrusion guns. Hardened steel assembly includes nozzle and cap. 11/16-16 UN(F). | | | | |
| 66541-3 | 0.031" (.787) | 66541-9 | 0.093" (2.36) | 66541-17 | 0.172" (4.37) |
| 66541-4 | 0.046" (1.17) | 66541-12 | 0.125" (3.18) | 66541-18 | 0.187" (4.75) |
| 66541-6 | 0.063" (1.60) | 66541-15 | 0.156" (3.96) | 66541-25 | 0.250" (6.35) |
| | | | | 66541-37 | 0.375" (9.53) |





Airless

Manual Airless Guns

| Model Number | Description | Max Fluid Pressure psi (bar) | Fluid Inlet in | Fluid Outlet I.D. & Thread in (mm) |
|--------------|--|------------------------------|----------------|------------------------------------|
| 651533 | Airless Gun: Wetted parts of 316 stainless steel with tungsten carbide seats. Used for airless application of paints, lacquets and other light fluids. Order TC-XXXX airless spray tip separately. | 5,000 (345) | 1/4" NPS(M) | 15/16" (2.3) & 11/16-16 (M) |
| 651500-1 | Airless Gun: Aluminum body with tungsten carbide seats. Used for airless application of materials over 200,000 cPs. Includes 66504 tip guard and nut. Order TC-XXXX spray tip separately. | 7500 (517) | 3/8" NPT(F) | 1/4" (6) & 11/16-16 (M) |



651533



651500-1

Automatic Airless Guns

| Model Number | Description | Max Fluid Pressure psi (bar) | Fluid Inlet in | Fluid Outlet I.D. & Thread in (mm) | Air Inlet/Outlet Inches NPT | Min. Air Pressure to open psi (bar) |
|--------------|---|------------------------------|----------------|------------------------------------|-----------------------------|---|
| 651511-1 | Airless Gun: Requires 4-way air valve to open & close. Adjusting screw varies stroke length. Secures to 1/2" diameter rod by Allen screw. Aluminum body with tungsten carbide seats. Includes 66504 tip guard and nut. Order TC-XXXX spray tip separately. | 5000 (345) | (2) 3/8 NPT(F) | 1/4" (6) & 11/16-16(M) | (2) 1/8 (F) | 50 (3.4) at 2000-psi (138-bar) fluid pressure |
| 651513-12-B | Airless Gun: Has air open, spring return cylinder. Requires 3-way air valve to open. Adjusting screw varies stroke length. Secure to 1/2" diameter rod with Allen screw. 316 stainless body with tungsten carbide seat. Includes 66504 tip guard and nut. Order TC-XXXX spray tip separately. | 5000 (345) | (1) 1/4 NPS(M) | 15/16" (2.3) & 11/16-16 (M) | (1) 1/8 (F) | 50 (3.4) at 2000-psi (138-bar) fluid pressure |



651511-1



651513-12-B



Airless

Airless Spray Tips

| Part Number | -D Models | Equivalent Orifice | Pattern Width in (mm) | Flow Rate gpm @ Fluid psi | | | |
|-------------|-----------|--------------------|-----------------------|---------------------------|-------|-------|-------|
| | | | | 500 | 1,000 | 1,500 | 2,000 |
| TC1325 | - | 0.013 | 5.5" (140) | 0.09 | 0.12 | 0.15 | 0.18 |
| TC1550 | -D | 0.015 | 10.0" (254) | 0.12 | 0.16 | 0.1 | 0.23 |
| TC1850 | -D | 0.018 | 10.0" (254) | 0.18 | 0.25 | 0.3 | 0.36 |
| TC1865 | -D | 0.018 | 13.0" (330) | 0.18 | 0.25 | 0.3 | 0.36 |
| TC1880 | -D | 0.018 | 15.0" (381) | 0.18 | 0.25 | 0.3 | 0.36 |
| TC2140 | -D | 0.021 | 8.5" (216) | 0.24 | 0.33 | 0.41 | 0.47 |
| TC2650 | -D | 0.026 | 12.0" (305) | 0.35 | 0.5 | 0.61 | 0.71 |
| TC3195 | - | 0.031 | 21.5" (546) | 0.53 | 0.75 | 0.92 | 1.1 |
| TC3650 | - | 0.036 | 12.0" (305) | 0.71 | 1 | 1.2 | 1.4 |
| TC4195 | - | 0.041 | 21.5" (546) | 0.88 | 1.2 | 1.5 | 1.8 |
| TC4340 | - | 0.043 | 9.0" (229) | 1.1 | 1.5 | 1.8 | 2.1 |
| TC4365 | - | 0.043 | 15.0" (381) | 1.1 | 1.5 | 1.8 | 2.1 |
| TC6265 | - | 0.062 | 15.0" (381) | 2.1 | 3 | 3.7 | 4.2 |

| Part Number | Description |
|------------------|---|
| 66504 | TIP GUARD AND NUT |
| Features | Secure TC-XXX tip to gun; guard required on airless applications. Order tips separately. |
| Used With | • All manual/automatic spray guns |
| 651555-B | QUICK CLEAN |
| Features | Spray tip locked in operating position until reversed with lever for cleaning. For spraying heavy-viscosity material. Order separately. |
| Used With | • All manual/automatic spray guns |
| 651551 | QUICK CLEAN |
| Features | Spray tip locked in operating position until reversed with lever for cleaning. For spraying heavy-viscosity material. Order TC-XXXX spray tip separately. |
| Used With | • 651500-1 guns • NOTE: To adapt 651551 to fit 651533, order 76555 pilot, 92367 retaining nut, Y167-1-1/8" (M) x 1/4" (F) adapter |
| 65030-1-B | SWIVEL |
| Features | 1/4" NPT(M) x 1/4" NPS (F); swivels 360°. No filter included. |
| Used With | • All manual/automatic spray guns |
| 65030-X-B | SWIVEL AND FILTER ASSEMBLY |
| Features | 1/4" NPT(M) x 1/4" NPS(F); swivels 360°. 6700-psi (462.3-bar) maximum working pressure |
| Used With | • All manual / automatic spray guns |
| 65030-1-B | Swivel, no filter |
| 65030-5-B | Swivel, 100-mesh stainless steel filter |
| 65030-9-B | Swivel, 60-mesh stainless steel filter |

Model Number Descriptor

TC 18 65 -D

TC = Tungsten carbide

-D tips used only with 651555-B quick clean

18 = 0.018 orifice diameter

65 = 65° spray pattern



TC1850

Equivalent Orifice

Airless tip orifices are elliptical in shape. The term "equivalent orifice diameter" refers to the circular orifice diameter which will provide the same flow rate as the elliptical orifice. The equivalent orifice diameter does not indicate actual orifice dimensions.

Pattern Width

This dimension is the nominal pattern width of each tip when tested on a coating material of 20 seconds: Number 4 Zahn cup viscosity at 1,500 psi at a 12" distance from the tip.

Flow Rate in gpm

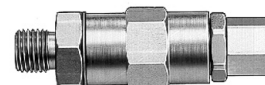
The flow rates of Ingersoll Rand / ARO Piston Pumps airless tips are given as gpm flow on water at pressures shown. Capacities will vary to some degree on other materials.



651555-B



651551



65030-1

Non-Metered and Metered

Non-metered Fluid Control Handles

| Model | Description | Max working pressure psi (bar) | Fluid inlet NPT (F) in (mm) | Fluid outlet |
|--|--|-----------------------------------|-----------------------------------|--------------|
| MOTOR OIL, GEAR OIL, TRANSMISSION FLUID | | | | |
| HIGH-VOLUME | | | | |
| 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 |
| STANDARD-VOLUME | | | | |
| 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 |
| WATER, ANTIFREEZE | | | | |
| 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 gpm (L) | Meter / totalizing increments | Max working pressure psi (bar) | Fluid inlet NPT (F) in (mm) | Fluid outlet |
|---|--------------------------|-------------------------------------|-----------------------------------|-----------------------------------|--------------|
| METERED, RIGID NOZZLE MODELS | | | | | |
| 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 |
| NON-METERED, RIGID NOZZLE MODELS (HANDLE AND NOZZLE ONLY) | | | | | |
| 635391-11 | 4 (15) | - | 1,000 (69) | 1/2" (12.7) | NON-DRIP TIP |
| METERED, FLEXIBLE NOZZLE MODELS | | | | | |
| 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 |
| NON-METERED, FLEXIBLE NOZZLE MODELS (HANDLE AND NOZZLE ONLY) | | | | | |
| 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 gpm (L) | Meter / totalizing increments | Max working pressure psi (bar) | Fluid inlet NPT (F) in (mm) |
|---|--------------------------|-------------------------------------|--------------------------------------|-----------------------------------|
| METER ONLY | | | | |
| 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) |
| METER, CONTROL HANDLES (WITHOUT NOZZLES) | | | | |
| 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 measure | Totalizing increments | Working pressure psi (bar) | Inlet size in (mm) | Fluid outlet |
|---|--------------------------------------|--------------------------|-------------------------------|-----------------------|--|
| PRESET, DIGITAL METERED FLOW CONTROL | | | | | |
| 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, METERED FLOW CONTROL | | | | | |
| 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) diameter non-drip tip |
| 635365 | 1 to 60 gallons | Gallons | 1,000 (69) | 1/2" (12.7) | 9/16" (14.3 mm) diameter non-drip tip |
| 635367 | 1 to 60 liters with auto shut-off | Liters | 1,000 (69) | 1/2" (12.7) | 9/16" (14.3 mm) diameter non-drip tip |



635360-2

635365

Non-drip Nozzle / Hose

| Model | Description | Fluid inlet NPT in (mm) | Length in (mm) | Max working pressure psi (bar) |
|---|-------------------------------------|-------------------------------|-------------------|--------------------------------------|
| MOTOR OIL, GEAR OIL, TRANSMISSION FLUID | | | | |
| 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) |
| NOZZLE, FLEXIBLE HOSE, WITH NON-DRIP TIP | | | | |
| 629245-1 | Flexhose, non-drip tip | 1/2" (12.7) | 15" (381) | 1,000 (69) |
| NOZZLE, RIGID TUBE WITH NON-DRIP TIP | | | | |
| 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 psi (bar) | Fluid inlet NPT (F) in (mm) | Fluid outlet in (mm) |
|---|--|-----------------------------------|-------------------------------------|---|
| GREASE CONTROL HANDLES | | | | |
| 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 (517) | 3/8" (9.5) (F) | 11/16" – 16 (17.5) (M) or 1/8" (3.2) 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 (517) | 1/8" (3.2) (M) or 3/8" (9.5) (F) | Hydraulic 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 (517) | 1/8" (3.2) (M) or 3/8" (9.5) (F) | Hydraulic coupler |
| WHIP HOSES FOR GREASE CONTROL HANDLES* | | | | |
| 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 (345) | 1/8" (3.2) (F) | 636046 hydraulic |

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



Specialty Application Control Handle

| Model | Description |
|--|---|
| WATER, ANTIFREEZE, WINDSHIELD FLUID | |
| 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

Heaters Fluid Heaters

Fluid Heaters and Accessories

| Part Number | Volts AC | Amps | Heater watts | Heater Accuracy °F (°C) | Rise Over Ambient °F (°C) | Recovery gph (L) | Working Press psi (bar) | Inlet/Outlet NPT | |
|-------------------------|--|------|-----------------|----------------------------|------------------------------|---------------------|----------------------------|---------------------|-----------|
| 651747-1-B | 120 | 16.6 | 2,000 | +/- 3-1/2° (+/- 1.9°) | 100° (38°) | 15 (56.8) | 5,000 (345) | 1/2" (F) | |
| 651747-2-B | 240 | 8.3 | 2,000 | +/- 3-1/2° (+/- 1.9°) | 100° (38°) | 15 (56.8) | 5,000 (345) | 1/2" (F) | |
| 651747-3-B | 440 | 4.5 | 2,000 | +/- 3-1/2° (+/- 1.9°) | 100° (38°) | 15 (56.8) | 5,000 (345) | 1/2" (F) | |
| Part Number | Description | | | | | | | | Used With |
| MOUNTING BRACKET | | | | | | | | | |
| 66258 | Bracket assembly with appropriate mounting holes to affix heater to vertical substrate | | | | | | | | 651747-X |



651747-X-B

Low-Profile Dispensing Valves

Spray valves for the atomization of low-viscosity fluids

These compact, air-operated, automatic spray valves provide air-atomized application of low-viscosity fluids. They are designed to be used with either supply pumps or pressure tanks. Several unique design features seal the material from outside air and moisture and prevent premature curing of material, which allows for either continuous or intermittent use and reduces the need for daily cleanup.

Compact design provides mounting versatility

The narrow dimensions, block shape, and hose placement allow installation in narrow, recessed areas. Multiple valves can be grouped together in an area normally occupied by a single conventional spray valve.

Spray Patterns

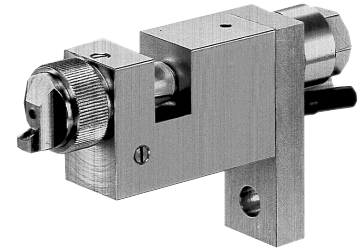
Unique spray patterns matched to application requirements

To meet the needs of your individual application, both flat and round spray patterns are available. For wide surface coverage with minimum film thickness, flat spray models are available in both 90 degree and 45 degree spray patterns. For a more focused pattern with a thicker film build or a conical substrate, the round spray models are the appropriate choice.

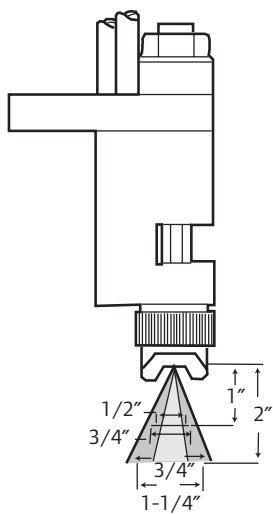
Extrusion valves for precise applications of bead patterns

For applications that require a precise bead of material rather than a sprayed coating, several extrusion valves are available. Like the spray valves, separate air pressure and material flow adjustments provide regulation of emissions for material savings and precise, accurate patterns.

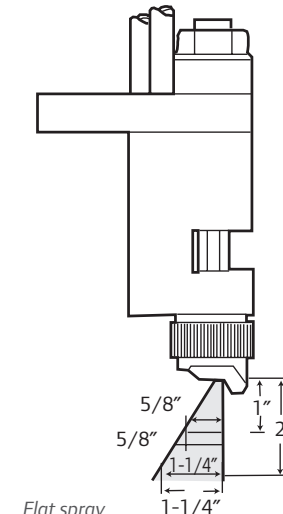
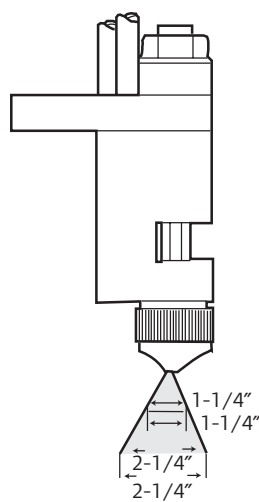
Multiple valves can be grouped together to achieve a multiple-bead pattern.



407442-08-4



Flat spray
90° pattern



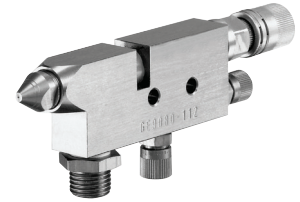
Flat spray
45° pattern

| Part Number | Material Pressure psi (bar) | Control Air psi (bar) | Atomizing Air psi (bar) |
|-------------|-----------------------------|-----------------------|-------------------------|
| 407442-XX | 15 (1.0) | 55 (3.8) | 20 (1.4) |
| | 30 (2.1) | 90 (6.2) | 35 (2.4) |

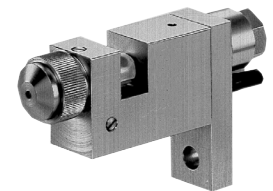
| Part Number | Material Pressure psi (bar) | Control Air psi (bar) | Atomizing Air psi (bar) |
|-------------|-----------------------------|-----------------------|-------------------------|
| 407442-XX-4 | 15 (1.0) | 55 (3.8) | 20 (1.4) |
| | 35 (2.1) | 90 (6.2) | 35 (2.4) |

Low-Profile Dispensing Valves

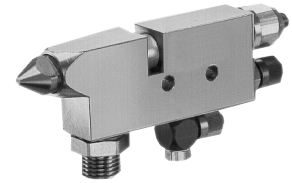
| Part Number | Tip Diameter mm | Fluid Inlet NPT(M) | Atomizing Air Inlet NPT(M) | Control Air Inlet NPT(M) | Minimum Control Air Required psi (bar) | Max Fluid Operating Pressure psi (bar) | Recommended Range Atomizing Air Pressure psi (bar) |
|---------------------------------------|-----------------|--------------------|----------------------------|--------------------------|--|--|--|
| FLAT SPRAY — 90° PATTERN | | | | | | | |
| 407442-8 | 0.8 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| 407442-10 | 1 | 1/4" | 1/4" | 1/8" | 55 (3.8) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| 407442-15 | 1.5 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| FLAT SPRAY — 45° PATTERN | | | | | | | |
| 407442-8-4 | 0.8 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| 407442-10-4 | 1 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| 407442-15-4 | 1.5 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.5 – 37.5 (0.5 – 2.5) |
| ROUND SPRAY — FOCUSED PATTERN | | | | | | | |
| 407443-8 | 0.08 | 1/4" | 1/4" | 1/8" | 90 (6) | 90 (6) | 7.3 – 37.5 (0.5 – 2.5) |
| 407443-12 | 1.2 | 1/4" | 1/4" | 1/8" | 90 (6) | 90 (6) | 7.3 – 37.5 (0.5 – 2.5) |
| 407443-20 | 2 | 1/4" | 1/4" | 1/8" | 90 (6) | 90 (6) | 7.3 – 37.5 (0.5 – 2.5) |
| ROUND SPRAY — DIFFUSED PATTERN | | | | | | | |
| 407441-8 | 0.08 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.3 – 37.5 (0.5 – 2.5) |
| 407441-10 | 1 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.3 – 37.5 (0.5 – 2.5) |
| 407441-15 | 1.5 | 1/4" | 1/4" | 1/8" | 55 (3.7) | 180 (12) | 7.3 – 37.5 (0.5 – 2.5) |
| EXTRUSION VALVES | | | | | | | |
| 407444-3 | 0.3 | 1/4" | 1/4" | 1/4" | 90 (6) | 1,000 (69) | None required |
| 407444-5 | 0.5 | 1/4" | 1/4" | 1/4" | 90 (6) | 1,000 (69) | None required |
| 407444-7 | 0.7 | 1/4" | 1/4" | 1/4" | 90 (6) | 1,000 (69) | None required |



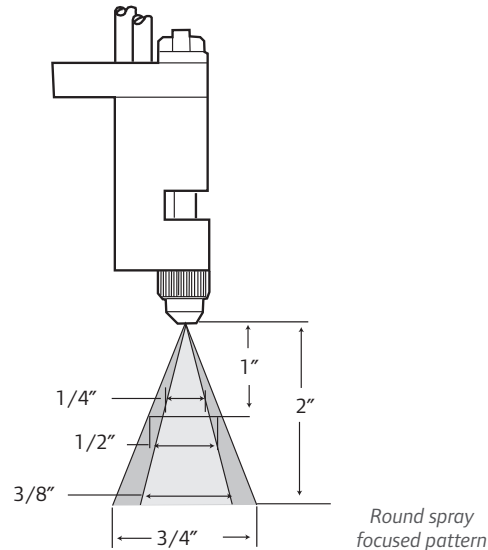
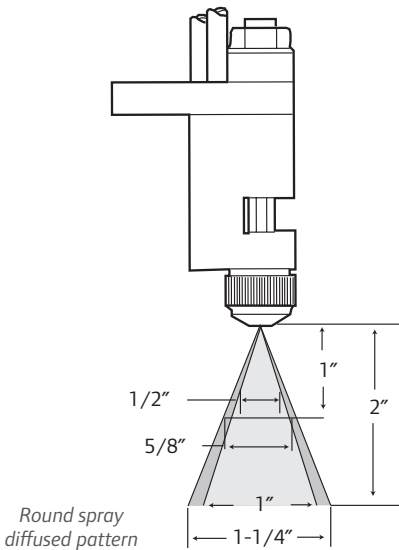
407444-3



407441-8



407444-3



| Part Number | Material Pressure psi (bar) | Control Air psi (bar) | Atomizing Air psi (bar) |
|-------------|-----------------------------|-----------------------|-------------------------|
| 407441-XX | 15 (1.0) | 55 (3.8) | 20 (1.4) |
| 407446-XX | 30 (2.1) | 90 (6.2) | 35 (2.4) |

| Part Number | Material Pressure psi (bar) | Control Air psi (bar) | Atomizing Air psi (bar) |
|-------------|-----------------------------|-----------------------|-------------------------|
| 407443-XX | 15 (1.0) | 100 (6.9) | 60 (4.1) |
| | 30 (2.1) | 100 (6.9) | 20 (1.4) |

Material Filters

Material Filters

| Part Number | Max Fluid Pressure psi (bar) | Filter | | Filter Inlet size NPT (qty) | Filter Outlet size NPT (qty) |
|---|---------------------------------|--------|---------|--------------------------------|---------------------------------|
| | | Mesh | Microns | | |
| 1/4" FLUID INLET — CARBON STEEL CONSTRUCTION | | | | | |
| 651412 | 5,000 (345) | 70 | 200 | 1/4" F (2) Bottom swivel | 1/4" F (3) |
| 651412-8 | 5,000 (345) | 100 | 149 | 1/4" F (2) | 1/4" F (3) |
| 1/2" FLUID INLET — STAINLESS STEEL CONSTRUCTION (PASSIVATED) | | | | | |
| 651422-40 | 6,000 (414) | 40 | 375 | 1/2" F (2) | 1/2" F (1) |
| 651422-70 | 6,000 (414) | 70 | 200 | 1/2" F (2) | 1/2" F (1) |
| 651422-100 | 6,000 (414) | 100 | 149 | 1/2" F (2) | 1/2" F (1) |
| 1/2" FLUID INLET — CARBON STEEL CONSTRUCTION (E-NICKEL PLATED) | | | | | |
| 651420-40 | 6,000 (414) | 40 | 375 | 1/2" F (2) | 1/2" F (1) |
| 651420-70 | 6,000 (414) | 70 | 200 | 1/2" F (2) | 1/2" F (1) |
| 651420-100 | 6,000 (414) | 100 | 149 | 1/2" F (2) | 1/2" F (1) |
| 651421-70 | 6,000 (414) | 70 | 200 | 1" (2) 1/2" (1) | 3/4" F (1) |
| 1" FLUID INLET — CARBON STEEL CONSTRUCTION (E-NICKEL PLATED) | | | | | |
| 651418-40-B | 6,000 (414) | 40 | 375 | 1" F (2) | 3/8" F (3) |
| 651418-70-B | 6,000 (414) | 70 | 200 | 1" F (2) | 3/8" F (3) |
| 651418-100-B | 6,000 (414) | 100 | 149 | 1" F (2) | 3/8" F (3) |

| Part Number | Description |
|--------------|--|
| 94256 | OUTLET REDUCING ADAPTER |
| Features | • For mounting material filter 1" NPT(M) x 1/2" NPT(M) |
| Used With | • Integrity 2-ball pumps |

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. |

Material Filter Screens

| Part Number | Screen Mesh | Filter Used With |
|-------------|-------------|------------------|
| 91192-2 | 70 | 651412 |
| 91192-3 | 100 | 651412 |
| 93944-40 | 40 | 651420 651422 |
| 93944-70 | 70 | 651420 651422 |
| 93944-100 | 100 | 651420 651422 |
| 93945-40 | 40 | 651418 |
| 93945-70 | 70 | 651418 |
| 93945-100 | 100 | 651418 |



651412-X



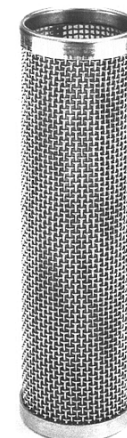
651418-XX-B



651420-XX-B



651830



93944-70

| Hose Material | Description |
|------------------------------|--|
| BUNA N | |
| Features | Buna N is highly resistant to petroleum-based oils and many cleaners; hoses incorporating a Buna N tube make excellent air hoses when lubrication is required in the air line |
| Recommended For | Ammonia solutions, petroleum oils and fluids, water, silicone greases and oils, di-ester base lubricants, ethylene glycol base fluids, abrasive material, corn oil, ethylene alcohol, soap solution |
| Not Recommended For | Acetate solvents, ketones (MEK, acetone), strong acids, ozone, automatic brake fluid, benzene, carbon disulfide, ethylene chloride |
| GRS | |
| Features | GRS (Government Rubber Styrene) has superior wear characteristics; high tensile properties, good abrasion, and moisture resistance makes a fine air hose |
| Recommended For | Automatic brake fluid, alcohols, water, use as an air hose |
| Not Recommended For | Ozone, petroleum oil, many chemicals, abrasive material |
| POLYSULFIDE (THIOKOL) | |
| Features | Highly resistant to most paint solvents; suitable for use as a flexible supply line carrying paint, latex materials, gasoline, and oil |
| Recommended For | 4-1/4" air motor and 6" air motor; 2-ball and 4-ball pumps (including Integrity/Stinger pumps) |
| Not Recommended For | Automatic brake fluid, alcohols, non-oxidizing acids, oils, ketones (MEK, acetone) |
| NEOPRENE | |
| Features | Good resistance to ozone, sunlight, and oxidation; performs well in contact with oils, is heat and flame-resistant, and has good tensile strength & resilience |
| Recommended For | Refrigerants (freons), petroleum oil, mild acids, silicate ester lubricants, abrasive material, calcium chloride |
| Not Recommended For | Phosphate ester fluids, ketones (MEK, acetone), benzene |
| NYLON | |
| Features | Nylon is tough and retains its shape at elevated temperatures; is highly resistant to abrasion and to the effects of most chemicals; unaffected by oil, enamel, or lacquer solvents when used as a fluid supply hose |
| Recommended For | Lubricating oils and grease, aliphatic and aromatic hydro-carbons, common esters, ketones, ethers, alkalies, abrasive material, benzene, butyl alcohol, carbon tetrachloride |
| Not Recommended For | Strong acids, RTV, creosote, oxidizing agents |

For further hose material compatibility, consult the ARO® Material Compatibility Guide, Form Number 8677-P.

Fluid Hoses

RTV/Moisture Lok™ Hoses

| Part Number | Fitting Thread Size | Hose Materials Tube | Cover | Lengths ft (m) | psi (bar) |
|--|-----------------------|---------------------|--------------|----------------|------------|
| 3/8" I.D., 11/16" O.D., POLYESTER BRAID | | | | | |
| 628081-10 | 3/8" NPTM x 3/8" NPTM | Polymer | Polyurethane | 10' (3.0) | 2250 (190) |
| 628081-15 | 3/8" NPTM x 3/8" NPTM | Polymer | Polyurethane | 15' (4.5) | 2250 (190) |
| 1/2" I.D., 13/16" O.D., POLYESTER BRAID | | | | | |
| 628084-5 | 1/2" NPTM x 1/2" NPTM | Polymer | Polyurethane | 5' (1.5) | 2000 (138) |
| 628084-10 | 1/2" NPTM x 1/2" NPTM | Polymer | Polyurethane | 10' (3.0) | 2000 (138) |
| 628084-25 | 1/2" NPTM x 1/2" NPTM | Polymer | Polyurethane | 25' (7.6) | 2000 (138) |

The material characteristic chart indicates what type of hose material is recommended for specific fluids. The following charts list hoses in order of use, size, tube, cover materials, and maximum working pressure. In selecting the proper hose, be sure the hose material and fluid is compatible and that the maximum working pressure will not be exceeded in the application. Standard length hoses, which are a stock item ready for shipment, are listed in the "standard lengths" column of the selection chart on the following page.

Low-Pressure Air and Fluid Hoses

| Part Number | Fitting Thread Size | Hose Materials Tube | Cover | Lengths ft (m) | psi (bar) |
|--|------------------------------|---------------------|----------|----------------|-----------|
| 1/2" I.D., 27/32" O.D., 1 FABRIC BRAID | | | | | |
| 621501-2 | 1/2" NPTM x 1/2" NPTM | GRS | GRS | 2' (.6) | 125 (9) |
| 621501-3 | 1/2" NPTM x 1/2" NPTM | GRS | GRS | 3' (.9) | 125 (9) |
| 621501-5 | 1/2" NPTM x 1/2" NPTM | GRS | GRS | 5' (1.5) | 125 (9) |
| 1/4" I.D., 5/8" O.D., 2 FABRIC BRAID | | | | | |
| 622201-3 | 1/4" NPTM x 1/4" NPTM | Buna N | Neoprene | 3' (.9) | 250 (17) |
| 622201-5 | 1/4" NPTM x 1/4" NPTM | Buna N | Neoprene | 5' (1.5) | 250 (17) |
| 622201-25 | 1/4" NPTM x 1/4" NPTM | Buna N | Neoprene | 25' (7.6) | 250 (17) |
| 622204-5 | 1/4" NPTM x 1/4" NPTSM (FSN) | Buna N | Neoprene | 5' (1.5) | 250 (17) |
| 622204-25 | 1/4" NPTM x 1/4" NPTSM (FSN) | Buna N | Neoprene | 25' (7.6) | 250 (17) |
| 3/4" I.D., 1-3/16" O.D., 2 FABRIC BRAID | | | | | |
| 622651-1-F | 3/4" NPTM x 3/4" NPTM | Neoprene | Neoprene | 1.5' (.4) | 600 (41) |



622201-5

Low-Pressure Fluid Hoses

| Part Number | Fitting Thread Size | Hose Materials Tube | Cover | Lengths ft (m) | psi (bar) |
|--|-----------------------|---------------------|----------|----------------|-----------|
| 1/2" I.D., 11/16" O.D., 2 FABRIC WIRE BRAID | | | | | |
| 622581-6 | 1/2" NPTM x 1/2" NPTM | Thiokol | Neoprene | 6' (1.8) | 200 (14) |
| 3/4" I.D., 1-1/4" O.D., 2 FABRIC BRAID | | | | | |
| 622681-6 | 3/4" NPTM x 3/4" NPTM | Thiokol | Neoprene | 6' (1.8) | 200 (14) |

Medium-Pressure Fluid Hoses

| Part Number | Fitting Thread Size | Hose Materials Tube | Cover | Lengths ft (m) | psi (bar) |
|---|---------------------------------|---------------------|-------|----------------|------------|
| 1/4" I.D., 1/2" O.D., CONDUCTIVE POLYMER | | | | | |
| 628042-25 | 1/4" NPSM(FSN) x 1/4" NPSM(FSN) | Nylon | Nylon | 25' (7.6) | 3000 (207) |

High-pressure Hose

| Model | ID in (mm) | OD in (mm) | Fitting threads both ends in (mm) | Max pressure psi (bar) | Length ft (m) |
|--|-------------|---------------|-----------------------------------|------------------------|---------------|
| BUNA-N TUBE, NEOPRENE COVER | | | | | |
| 1-WIRE BRAID | | | | | |
| 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) |
| 2-WIRE BRAID | | | | | |
| 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) |
| ELASTOMER TUBE, POLYESTER COVER | | | | | |
| 1-WIRE BRAID | | | | | |
| 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.

Siphon Hoses

| Part Number | Description |
|-----------------|--|
| 65986-1 | SIPHON HOSE |
| Features | <ul style="list-style-type: none"> • 55-gallon size; neoprene cover and thiokol tube • Includes 91020-2 pipe extension |
| Used With | • 651852 drum cover or closed drum with 2" bung opening |
| Hose | • 6' length, 3/4" (M) fluid outlet |
| 622702-6 | SIPHON HOSE |
| Features | • 1" I.D. hose with stainless steel fittings |
| Used With | • Stainless steel stub pumps |
| Hose | • 6' length, 1" (M) fluid outlet, 1" (M) fluid inlet |
| 622701-6 | SIPHON HOSE |
| Features | • 1" I.D. hose with carbon steel fittings |
| Used With | • Carbon steel stub pumps |
| Hose | • 6' length, 1" (M) fluid outlet, 1" (M) fluid inlet |
| 67140-1 | STAINLESS STEEL SIPHON HOSE |
| Features | • For 5-gallon containers; includes 16" wand and 5' of 3/4" I.D. hose |
| Used With | • Wall-mounted Integrity pumps |
| Hose | • 5' length, 3/4" (M) fluid outlet |
| 67140-2 | STAINLESS STEEL SIPHON HOSE |
| Features | • For 55-gallon containers; includes 36" wand and 5' of 3/4" I.D. hose |
| Used With | • Wall-mounted Integrity pumps |
| Hose | • 5' length, 3/4" (M) fluid outlet |



67140-1



65986



ARO-Stop

Over-Run Controls

| Part Number | Description |
|-------------------------|---|
| 635040 | ARO-STOP VALVE |
| Features | <ul style="list-style-type: none"> • Shuts off air to the pump when material container is empty or line is broken • Quick set and reset feature |
| Used With | • 2" and N-Series air motor pumps |
| Air Inlet/Outlet | • 1/4" NPT(F) inlet/1/4" NPT(M) outlet |
| Pressure Range | • 20 – 175 psi (1.4 – 12 bar) |
| Flow | • 21 cfm @ 100 psi |
| 23644-400 | ARO-STOP VALVE |
| Features | <ul style="list-style-type: none"> • Shuts off air to the pump when material container is empty or line is broken • Quick set and reset feature |
| Used With | • 4-1/4" and 6" air motor pumps |
| Air Inlet/Outlet | • 1/2" NPT(F) inlet/1/2" NPT(M) outlet |
| Pressure Range | • 20 – 175 psi (1.4 – 12 bar) |
| Flow | • 80 cfm @ 100 psi |
| 635043 | ARO-STOP VALVE |
| Features | <ul style="list-style-type: none"> • Shuts off air to the pump when material container is empty or line is broken • Quick set and reset feature |
| Used With | • 8", 10", and 12" air motor pumps |
| Air Inlet/Outlet | • 3/4" NPT(F) inlet/3/4" NPT(M) outlet |
| Pressure Range | • 20 – 175 psi (1.4 – 12 bar) |
| Flow | • 135 cfm @ 100 psi |



635040

Agitators

| Part Number | Container Size gal | Drum Cover | Air Motor Number | hp (kW) | Motor rpm | Mount | Diameter in (mm) | Length in (mm) | Rod Model | Material |
|-------------|--------------------|-------------------------|------------------|-----------|-------------|--------|------------------|----------------|-----------|-----------------------|
| 651100 | 5 | 651851 drum cover | 650252 | 1/3 (.25) | 500 – 1,000 | Hub | 1/2" (12.7) | 12" (305) | 92094-4 | 416 stainless steel |
| 651104-3 | 5 | drum cover | 650250 | 3/4 (.36) | 300 – 3,000 | Flange | 1/2" (12.7) | 10.5" (267) | 92094-3 | 316SS stainless steel |
| 60307-1 | 55 | 61729, 66197 drum cover | 650250 | 3/4 (.56) | 300 – 3,000 | Flange | 1/2" (12.7) | 32" (813) | 73120 | Carbon steel |
| 651103 | 55 | Drum side mount | 650250 | 3/4 (.56) | 300 – 3,000 | Flange | 1/2" (12.7) | 32" (813) | 92094-1 | 316 stainless steel |
| 651104-1 | 55 | 66197 drum cover | 650250 | 3/4 (.56) | 300 – 3,000 | Flange | 1/2" (12.7) | 32" (813) | 92094-1 | 316SS stainless steel |

Propeller Specifications

| Part Number | Number of Props | Diameter in (mm) | Prop Number | Material | Prop Direction |
|-------------|-----------------|------------------|--------------|---------------------|----------------|
| 651100 | 1 | 4" (102) | 94783-1 | 316 stainless steel | CCW |
| 651104-3 | 1 | 5" (127) | 94783-1 | 316 stainless steel | CCW |
| 60307-1 | 2 | 5" (127) | 73121, 73122 | 316 stainless steel | CCW |
| 651103 | 2 | 5" (127) | 94783-1 | 316 stainless steel | CCW |
| 651104-1 | 2 | 5" (127) | 94783-1 | 316 stainless steel | CCW |



651100



651103



651104-3



651104-1

Inlet Accessories/Adapters

| Part Number | Description |
|------------------|---|
| 651830 | SCREEN ASSEMBLY |
| Features | <ul style="list-style-type: none"> Adapts to 91020-1 or 91020-2 pipe extension keeps foreign matter from entering lower pump end |
| 94254 | INLET ADAPTER |
| Features | <ul style="list-style-type: none"> 90° 1" NPT(M) x 3/4" (F) used to adapt suction hose to 67139 cart |
| Used With | <ul style="list-style-type: none"> Integrity pumps |
| 94256 | OUTLET REDUCING ADAPTER |
| Features | <ul style="list-style-type: none"> For mounting material filter 1" NPT(M) x 1/2" NPT(M) |
| Used With | <ul style="list-style-type: none"> Integrity 2-ball pumps |



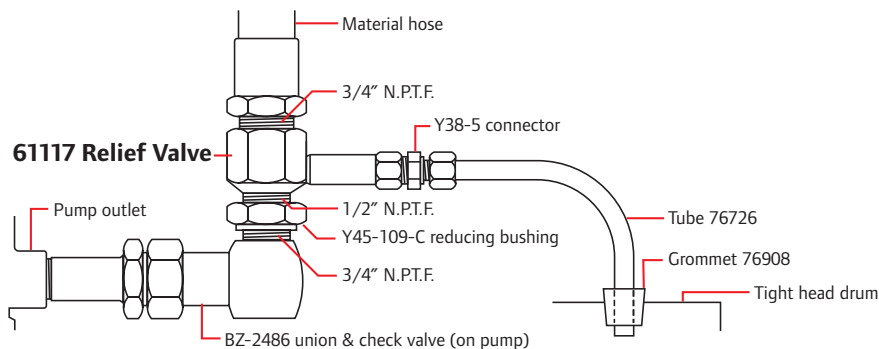
94254



94256

Pressure Relief Valve / Valve Kit

| Model | Description |
|---|--|
| PRESSURE RELIEF VALVE / VALVE KITS | |
| 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) |



Mufflers

Air Motor Mufflers

Air Motor Muffler Kits

| Model | Inlet Pressure** | Cycle Rate** | Used With | Equivalent Continuous Level (dBA) |
|---------|------------------|--------------|-----------|-----------------------------------|
| 67445-1 | 60 psig | 40 cpm | AF044X-XX | 80.8 |
| | | | AF046X-XX | 77.8 |
| 67445-2 | | | AF064X-XX | 79.8 |
| | | | AF066X-XX | 82 |
| 67445-3 | | | AF08XX-XX | 81.8 |
| 67445-4 | | | AF10XX-XX | 83.7 |
| 67445-5 | | | AF12XX-XX | 86.9 |

*The pump sound pressure level has been updated to an Equivalent Continuous Sound Level (L_{aeq}) to meet the intent of ANSI S1.13-1971, CAGI-PNEUROPS.1 using 4 microphone locations.

**Inlet Pressure - 60 psig, Cycle Rate - 40 cpm



67445-X

Valves

Ball Valve Regulators

| Model | Air Inlet Port | Maximum Air Inlet Pressure | Operating Temperature Range | Maximum Air Flow | Used With (Air Motor Part No.) |
|-------|----------------|---|---------------------------------|-------------------------------|---|
| 67442 | 1/2" 14NPT | Refer to Air Inlet PMAX found on model plate of pump/ air motor | 23 F to 1750 F (-50 C to 790 C) | SCFM (101 dm ³ /s) | AF04XX-01, AF06XX-01, AF08XX-01, AF10XX-01, AF12XX-01 |



67442

Swivels

Z and Straight Swivels

| Model | Thread Size NPT x NPT in | Type of Seals | Max Working Pressure psi (bar) |
|------------------------|--------------------------|---|--------------------------------|
| STRAIGHT SWIVEL | | | |
| 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) |
| Z 360° SWIVEL | | | |
| 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) |



636075



635108



636077

Valves

Fluid Control Valve

| Model | Inlet outlet NPT in (mm) | Body material | Seat material | Max working pressure psi (bar) |
|---|-------------------------------------|---------------------|---------------|--------------------------------|
| BALL VALVES | | | | |
| USED TO CONTROL THE ON-OFF FLOW OF FLUID MATERIAL OR AIR. SELECT PROPER WORKING PRESSURE AND MATERIAL COMPATIBILITY FOR APPLICATION. | | | | |
| 61124 | 3/4" (19.1) (F) | Bronze | Buna-N | 200 (14) |
| 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) |
| PLUG VALVES | | | | |
| Y28-1 | 1/4" (6.3) (F) | Brass | N/A | 150 (10) |
| Y28-2 | 1/8" (3.2) (F) | Brass | N/A | 150 (10) |
| NEEDLE VALVES | | | | |
| 92818 | 1/4" (6.3) (F) x 1/4" (6.3) (M) | Brass | Leather | 125 (9) |
| GLOBE VALVES | | | | |
| Y26-1 | 3/4" (19.1) (F) | Brass | Graphite | 125 (9) |
| BALL VALVES | | | | |
| 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

Grease Gun Couplers

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.

| Model | Thread size NPT in (mm) | Material of construction |
|--|--|-----------------------------|
| STRAIGHT COUPLINGS — 150 PSI (10 BAR) MAX | | |
| 6,750 PSI (446 BAR) MAX | | |
| 77617 | 3/8" (9.5) (M) x 1/2" (12.7) (M) | Zinc-plated steel |
| 5,000 PSI (345 BAR) MAX | | |
| 76751 | 1/4" (6.3) (M) x 11/16"-16 (17.5) (M) | Steel |
| 8,000 PSI (552 BAR) MAX | | |
| 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 |
| REDUCING BUSHINGS — 150 PSI (10 BAR) MAX | | |
| 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 |
| 3,000 PSI (207 BAR) MAX | | |
| 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 |
| 10,000 PSI (690 BAR) MAX | | |
| 6788 | 1/4" (6.3) (F) x 1/2" (12.7) (M) | Steel |
| STREET ELBOWS — 150 PSI (10 BAR) MAX | | |
| 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 |
| STRAIGHT COUPLINGS — 150 PSI (10 BAR) MAX | | |
| 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 |
| SHORT NIPPLES — 150 PSI (10 BAR) MAX | | |
| 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 |
| 8,000 PSI (552 BAR) MAX | | |
| 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 |
| LONG NIPPLES — 150 PSI (10 BAR) MAX | | |
| LENGTH — 2" (51 MM) | | |
| Y44-11-C | 1/4" (6.3) | Plated iron |
| LENGTH — 2-1/2" (63.5 MM) | | |
| Y44-12-C | 1/4" (6.3) | Plated iron |
| ELBOWS — 150 PSI (10 BAR) MAX | | |
| Y43-15-C | 3/4" (19.1) (F) x 3/4" (19.1) (F) | Iron |
| 3,000 PSI (207 BAR) MAX | | |
| Y43-215 | 3/4" (19.1) (F) x 3/4" (19.1) (F) | Steel |



77617



Y45-106-C



Y43-2-C



Y43-44



676

Fittings (continued)

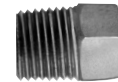
| Model | Thread size NPT in (mm) | Material of construction | Max pressure psi (bar) |
|---------------------------|---|-----------------------------|---------------------------|
| SWIVEL UNIONS | | | |
| 75364 | 1/4" (6.3) (M) x 1/4" (6.3) (F) | Steel | 10,000 (690) |
| 75366 | 1/2" (12.7) (M) x 1/2" (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) |
| PLAIN TEE – FEMALE | | | |
| 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) |
| PIPE PLUGS – MALE | | | |
| Y17-50 | 1/8" (3.2) countersunk (hex) | Steel | 10,000 (690) |
| Y17-51 | 1/4" (6.3) countersunk (hex) | Steel | 10,000 (690) |
| FEMALE ADAPTER | | | |
| 4280 | 3/8" (9.5) (F) x 1/8" (3.2) NPT (F) | Steel | 8,000 (552) |
| ADAPTER UNIONS | | | |
| 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) 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



92021

Fluid Couplers

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

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) |

| | | | | |
|---|---|---|--|--|
|  <p>1/8" and 1/4" Ports Max Inlet Press: Poly bowl 150 psi Metal bowl 250 psi Series size: Miniature</p> |  <p>1/4" and 3/8" Ports Max Inlet Press: Poly bowl 150 psi Metal bowl 250 psi Series size: Compact</p> |  <p>3/8", 1/2" and 3/4" Ports Max Inlet Press: Poly bowl 150 psi Metal bowl 250 psi Series size: Standard</p> |  <p>3/4" and 1" Ports Max Inlet Press: Metal bowl 250 psi Series size: Heavy Duty</p> |  <p>1", 1-1/4", 1-1/2", 2" and 3" Ports Max Inlet Press: Filter Metal bowl 300 psi Lubricator Metal bowl 200 psi Series size: 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 |
|-----------------------------|---|----------------|----------------|----------------|----------------|--------------|------------------|--------------|
| 1000 Series | 46 scfm* | | | | | | | |
| 1500 Series | | 85 scfm* | | | | | | |
| 2000 Series | | | 150 scfm* | | | | | |
| 3000 Series | | | | | 215 scfm* | | | |
| Super Duty Series | | | | | | 1200 scfm | | |
| Specialty Regulators | Precision, Stainless Steel and Brass Regulators | | | | | | | |

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



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

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