

# **ARO**-Flo Series

*Filters, regulators, and lubricators*



For more than 100 years, Ingersoll Rand ARO has been an industry leader in the design and manufacture of compressors, pneumatic tools, and air preparation equipment. Clean air is a key ingredient that enables effective and efficient operation of tools, equipment, and machinery in almost every industry. As such, the use of air preparation devices, such as filters, regulators, and lubricators (FRLs) is an excellent means of keeping your air supply in top condition, as well as enabling your tools and equipment to operate at their peak performance. The new ARO-Flo Series FRLs continue the tradition of offering premium products for your operation, and also raises the bar in the industry for safety, flow performance, and modularity.

### **Safety:**

Providing safe tools and equipment is our top priority. ARO-Flo Series FRLs are designed with integrated safety features such as locking bowls and clear multilingual markings. Accessories such as lockout valves, check valves, and soft-start valves allow the air supply to be safely managed and controlled.



**Performance:** ARO-Flo Series FRLs set the standard for flow performance. Simply put, air flows better through ARO-Flo filters, regulators, and lubricators than almost any other other air filtration device. This means less air is choked during the air preparation process, and your equipment can perform at its peak performance.

**Modularity:** All ARO-Flo accessories are designed to integrate with each other within each size range. From pipe adapters to T-brackets, your complete FRL assembly and its individual components can be easily, safely, and quickly assembled or disassembled with a minimum of tools — no fuss or complications, even with fixed piping.

## Best in class

The following regulators were put through head-to-head tests to determine how they compare with the new ARO-Flo Series.

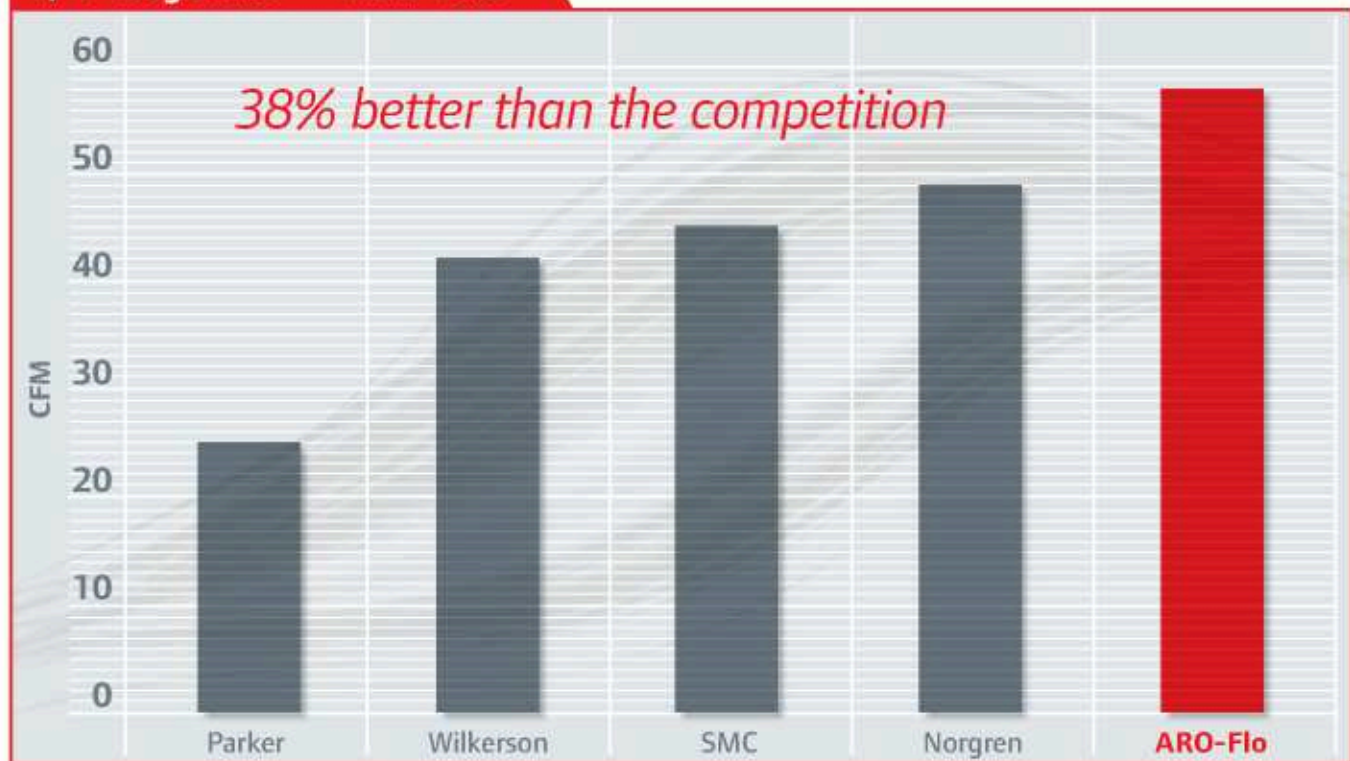
| Manufacturer   | Model Number      | Flow Rate     |
|----------------|-------------------|---------------|
| Parker         | 14R118F           | 27 cfm        |
| Wilkerson®     | R08-02-FOG0       | 44 cfm        |
| SMC®           | AR20-N02E-Z       | 48 cfm        |
| Norgren        | R72G-2AK-RMG      | 51 cfm        |
| <b>ARO-Flo</b> | <b>R37121-620</b> | <b>59 cfm</b> |

How did we do? On average, the ARO-Flo 1/4" 1000 Series regulator flowed 38 percent better than the competition. All regulators were tested under the same conditions, and all units were new — right out of the box.



R37121-620

### 1/4" Regulator — Flow Test



Test parameters: 100 psi inlet pressure, 90 psi set pressure, and 33 psi drop.

This is not the largest 1/4" regulator in the ARO-Flo Series, but rather the smallest. How did we do it? We designed the ARO-Flo Series from the ground up to allow air to pass through the units with a minimum of flow loss. The bottom line: If you want superior flow in your application, you can't miss with the new ARO-Flo Series.

To obtain the actual test report, email your request to [aroweleads.com](mailto:aroweleads.com).



## Features and benefits

By utilizing a modular lockout valve the user can close off the downstream air supply for maintenance and pressure isolation. Units are threaded for direct plumbing or can be installed in the modular arrangement.

Optional filter life indicator works off of pressure differential to show a visible alert when the filter needs replacement.

A T-bracket wall mount is standard on all combo units.

The settable gauge fan is a visual reference that allows the user to display the specific pressure range that is needed for their application.



Use of modular threaded pipe adapters allow for ease of service by allowing a unit to be quickly removed from the air line. Adapters can be used to pipe different thread sizes in the plumbing setup.

The ARO soft-start valve allows system pressure to build gradually, protecting downstream equipment and creating a safer start-up condition.

A panel nut is standard on all individual ARO-Flo regulators and piggybacks. Must be ordered separately on combination units.

### Spares and Accessories

See our accessories catalog or go to our Web site for the complete selection of accessories for your application.



Refurb kits  
104302



Mounting brackets  
104409



Replacement parts  
104338



Pressure switch  
104415

The pressure switch is typically threaded into a manifold port block, and allows the sensing of high or low pressure thresholds set by the user.

The oil drip rate is controlled by adjusting the sight dome adjustment screw in a clockwise or counter-clockwise direction.

The auto-fill option is standard on all ARO-Flo lubricators. Lubricating oil can be added while lubricators are under pressure.

The ARO-Flo check valve is typically installed downstream of the regulator. It is used to help prevent downstream pressure from moving upstream of the valve in the event of upstream pressure loss.

Optional tamper kit installs in seconds and prevents adjustment of the regulated pressure.

The installation of a manifold port block enables design flexibility by allowing clean, regulated air to be diverted to other applications.



Gauges 104334

Manifold block kit 104413-3-2

Lubricating oil 29665

Accessories

1000 Series



### 1000 Series

1/8" and 1/4" Ports

**Max flow:** 59 scfm  
**Series size:** Miniature  
**Page:** 8

1500 Series



### 1500 Series

1/4" and 3/8" Ports

**Max flow:** 113 scfm  
**Series size:** Compact  
**Page:** 18

2000 Series



### 2000 Series

3/8", 1/2", and 3/4" Ports

**Max flow:** 222 scfm  
**Series size:** Standard  
**Page:** 28

3000 Series



### 3000 Series

3/4" and 1" Ports

**Max flow:** 368 scfm  
**Series size:** Heavy-Duty  
**Page:** 38

Super-Duty Series



### Super-Duty Series

1", 1-1/4", 1-1/2", 2" and 3" Ports

**Max flow:** 1,770 scfm  
**Series size:** Super-Duty  
**Page:** 48

Specialty Items



### Specialty Items

1/8", 1/4", 3/8", 1/2", and 3/4" Ports

**Specialty line**  
**Page:** 56



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)



## Overview

### Filters

ARO-Flo compressed air filters are designed to remove airborne solid and liquid contaminants. Filters can be ordered with different elements, including coalescing models which are capable of removing oil aerosols and particles down to 0.3 micron. Standard filters are sold with 5-micron elements; 40-micron elements can be purchased and installed separately.



### Regulators

Air line regulators provide controlled, consistent air pressure as required for specific pneumatic equipment connected to the air system. All ARO-Flo regulators are offered with a standard adjustment range of 0 – 140 psig (0 – 9.6 barg). Alternative spring ranges are offered for easy conversion to suit different requirements. Non-relieving regulators are offered for applications where the venting of downstream overpressure is undesirable.



### Lubricators

ARO-Flo mist-type lubricators help ensure that pneumatic devices receive the required lubrication to maintain peak performance, reduce wear, and prolong service life. They are designed to provide the correct amount of oil required for most general applications in a pneumatic system, delivering a constant ratio of oil to air flow. Precise oil feed adjustment sets the proper oil drip rate. Lubricators should be installed close to the downstream application to ensure effective distribution of oil.



### Piggyback Filters / Regulators

Filter-regulators, or "piggybacks," combine the functions of both a filter and regulator. Piggybacks are compact and most effective when space is a constraint. Piggybacks can be ordered with different filter elements and can be modified with different springs, depending on the filtration and air regulating requirements.



### Combinations

Filters, regulators, lubricators, and piggybacks can be combined together to form combinations. They are typically strung together in the F+R+L arrangement (three-piece combo) and F/R+L (two-piece combo) arrangement, although other configurations are also used depending on application needs. ARO-Flo combination FRLs are easily assembled using modular spacer kits. Panel nuts not included with units. Must be ordered separately.



## Selection

When selecting an FRL or individual filter, regulator and lubricator units, the air consumption of the tools or equipment to be serviced should be correlated with the flow capacity of the FRL. **ARO Filters, Regulators and Lubricators are designed to flow in excess of that indicated in the maximum recommended flow table shown below.** This table gives recommended flows for pipe sizes at listed pressures and should be used as a guide in sizing piping and equipment for compressed air systems.

### Maximum recommended air flow (scfm) thru ANSI standard weight Schedule 40 pipe

| Applied Pressure<br>PSIG | Nominal Standard Pipe Size — Inches |      |      |       |       |     |        |        |      |        |      |
|--------------------------|-------------------------------------|------|------|-------|-------|-----|--------|--------|------|--------|------|
|                          | 1/8"                                | 1/4" | 3/8" | 1/2"  | 3/4"  | 1"  | 1-1/4" | 1-1/2" | 2"   | 2-1/2" | 3"   |
| 5                        | 0.5                                 | 1.2  | 2.7  | 4.9   | 6.6   | 13  | 27     | 40     | 80   | 135    | 240  |
| 10                       | 0.8                                 | 1.7  | 3.9  | 7.7   | 11.0  | 21  | 44     | 64     | 125  | 200    | 370  |
| 20                       | 1.3                                 | 3.0  | 6.6  | 13.0  | 18.5  | 35  | 75     | 110    | 215  | 350    | 600  |
| 40                       | 2.5                                 | 5.5  | 12.0 | 23.0  | 34.0  | 62  | 135    | 200    | 385  | 640    | 1100 |
| 60                       | 3.5                                 | 8.0  | 18.0 | 34.0  | 50.0  | 93  | 195    | 290    | 560  | 900    | 1600 |
| 80                       | 4.7                                 | 10.5 | 23.0 | 44.0  | 65.0  | 120 | 255    | 380    | 720  | 1200   | 2100 |
| 100                      | 5.8                                 | 13.0 | 29.0 | 54.0  | 80.0  | 150 | 315    | 470    | 900  | 1450   | 2600 |
| 150                      | 8.6                                 | 20.0 | 41.0 | 80.0  | 115   | 220 | 460    | 680    | 1350 | 2200   | 3900 |
| 200                      | 11.5                                | 26.0 | 58.0 | 108.0 | 155.0 | 290 | 620    | 910    | 1750 | 2800   | 5000 |
| 250                      | 14.5                                | 33.0 | 73.0 | 135.0 | 200   | 370 | 770    | 1150   | 2200 | 3500   | 6100 |

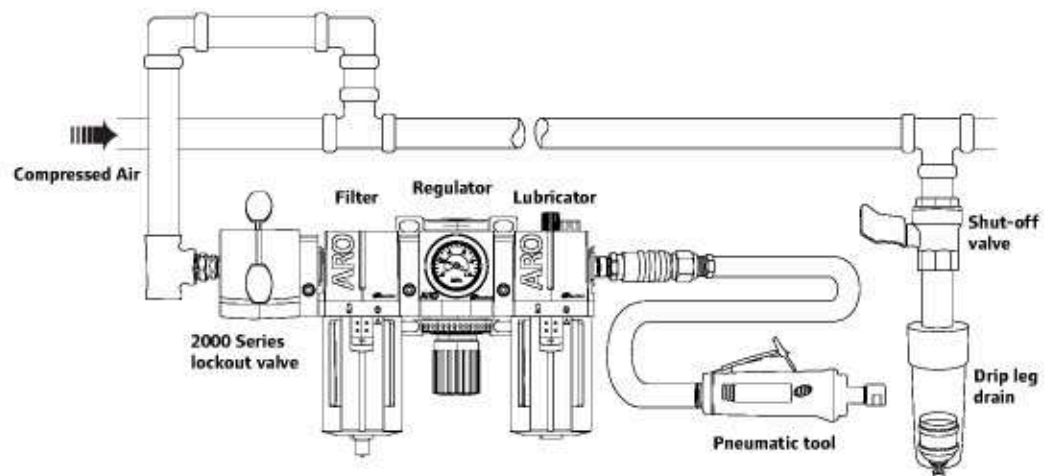
The flow values in the chart above are based upon a pressure drop ( $\Delta P$ ) as set forth in the following schedule:

| Pressure Drop ( $\Delta P$ ) per 100 ft. of Pipe | Pipe Size — Inches                |
|--|-----------------------------------|
| 10% of Applied Pressure                          | 1/8, 1/4, 3/8, 1/2                |
| 5% of Applied Pressure                           | 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3 |

## Installation

The filter, regulator and lubricator should be installed in the order shown in the illustration below. If a coalescing filter is required, it should be installed downstream from a standard filter. Individual take-off lines to the FRL and air tool or equipment should be from the top of the compressed air line. Make sure that air flow markings are followed for proper flow direction through the FRL units.

To trap and expel water, sludge and other contaminants which may collect on the bottom of the air line, a drip leg drain should be used. Drip leg drains should be installed at low points in the piping system and at the far end of the distribution system.



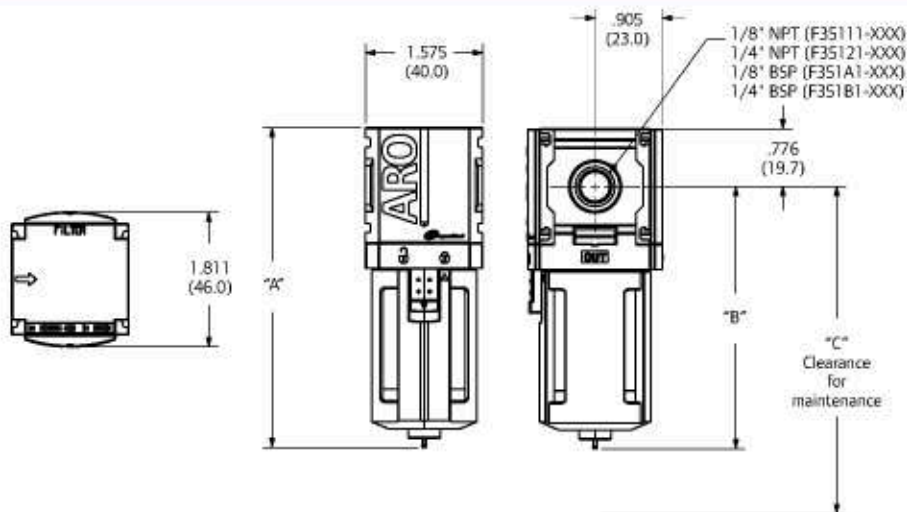


# 1000 Series filters

## 1/8" and 1/4" Ports

| Technical data               |                    |            |
|------------------------------|--------------------|------------|
| Polycarbonate bowl           | Polycarbonate      |            |
| Polycarbonate bowl guard     | Nylon              |            |
| Metal bowl                   | Aluminum           |            |
| Filter body                  | Aluminum           |            |
| Manual drain                 | Brass + nitrile    |            |
| Auto drain                   | Acetal             |            |
| Standard filter              | Polyethylene       |            |
| Coalescing filter            | HEPA paper + felt  |            |
| Seals                        | Nitrile            |            |
| Filter baffle                | Acetal             |            |
|                              | POLYCARBONATE BOWL | METAL BOWL |
| Max inlet pressure (psi)     | 150                | 250        |
| Temperature range (F)        | 23 – 125           | 23 – 175   |
| Bowl cap — manual drain (oz) | 0.5                | 0.4        |
| Bowl cap — auto drain (oz)   | 0.7                | 0.7        |
| Bowl cap — coal manual drain | 0.3                |            |
| Bowl cap — coal auto drain   | 0.5                |            |
| *Flow capacity — 1/8" port   | 38 scfm            |            |
| *Flow capacity — 1/4" port   | 49 scfm            |            |

\*Inlet pressure 90 psi (6.2 bar) with 10 psi drop (0.7 bar)



| MODELS     | A (MM)        | B (MM)        | C (MM)        | BOWL OPTION            | DRAIN OPTION |
|------------|---------------|---------------|---------------|------------------------|--------------|
| F351X1-XX0 | 4.303 (109.3) | 3.528 (89.6)  | 5.102 (129.6) | N/A                    | MANUAL       |
| F351X1-X01 | 5.016 (127.4) | 4.240 (107.7) | 5.815 (147.7) | POLYCARBONATE W/ GUARD | AUTOMATIC    |
| F351X1-X21 | 4.992 (126.8) | 4.217 (107.1) | 5.791 (147.1) | METAL                  | AUTOMATIC    |



## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |          |  |  |
|-----------|------------|----------|--|--|
| Port size | Base model |          |  |  |
| 1/8"      | F3511      | 1- X X X |  |  |
| 1/4"      | F3512      | 1- X X X |  |  |

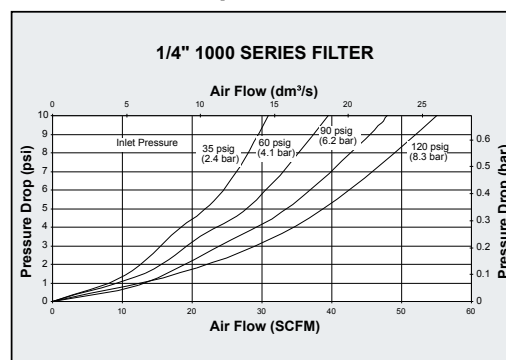
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|                    |                         |                          |                     |
|--------------------|-------------------------|--------------------------|---------------------|
| <b>Thread type</b> | <b>Filter element</b>   | <b>Bowl option</b>       | <b>Drain option</b> |
| 1 1/8" NPT         | 3 0.3-Micron coalescing | 0 Polycarbonate w/ guard | 0 Manual            |
| 2 1/4" NPT         | 4 5 micron              | 2 Metal                  | 1 Automatic         |
| A 1/8" BSP         |                         |                          |                     |
| B 1/4" BSP         |                         |                          |                     |

## Popular configurations

| Port size<br>NPT                                  | Filter type | Bowl cap<br>(oz) | Element<br>(microns) | Model      |
|---|-------------|------------------|----------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL</b>                  |             |                  |                      |            |
| 1/8"  | Coalescing  | 0.3              | 0.3                  | F35111-320 |
| 1/8"  | Standard    | 0.4              | 5                    | F35111-420 |
| 1/4"  | Coalescing  | 0.3              | 0.3                  | F35121-320 |
| 1/4"  | Standard    | 0.4              | 5                    | F35121-420 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD</b> |             |                  |                      |            |
| 1/8"  | Coalescing  | 0.3              | 0.3                  | F35111-300 |
| 1/8"  | Standard    | 0.5              | 5                    | F35111-400 |
| 1/4"  | Coalescing  | 0.3              | 0.3                  | F35121-300 |
| 1/4"  | Standard    | 0.5              | 5                    | F35121-400 |
| <b>AUTO DRAIN • METAL BOWL</b>                    |             |                  |                      |            |
| 1/8"  | Coalescing  | 0.5              | 0.3                  | F35111-321 |
| 1/8"  | Standard    | 0.7              | 5                    | F35111-421 |
| 1/4"  | Coalescing  | 0.5              | 0.3                  | F35121-321 |
| 1/4"  | Standard    | 0.7              | 5                    | F35121-421 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD</b>   |             |                  |                      |            |
| 1/8"  | Coalescing  | 0.5              | 0.3                  | F35111-301 |
| 1/8"  | Standard    | 0.7              | 5                    | F35111-401 |
| 1/4"  | Coalescing  | 0.5              | 0.3                  | F35121-301 |
| 1/4"  | Standard    | 0.7              | 5                    | F35121-401 |

## 1/4" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                          |
|--------|--------------------------------------|
| 104293 | Replacement auto drain*              |
| 104294 | Replacement manual drain             |
| 104295 | 5-Micron element                     |
| 104296 | 40-Micron element                    |
| 104297 | 0.3-Micron element                   |
| 104298 | Poly bowl, manual drain              |
| 104299 | Poly bowl, auto drain                |
| 104300 | Metal bowl, manual drain             |
| 104301 | Metal bowl, auto drain               |
| 104468 | Filter bowl service kit (O-ring)     |
| 104459 | Coalescing filter bowl, manual drain |
| 104460 | Coalescing filter bowl, auto drain   |

\* Replacement auto drains can only be used with auto drain bowls.

## Accessories

See page 65 for details

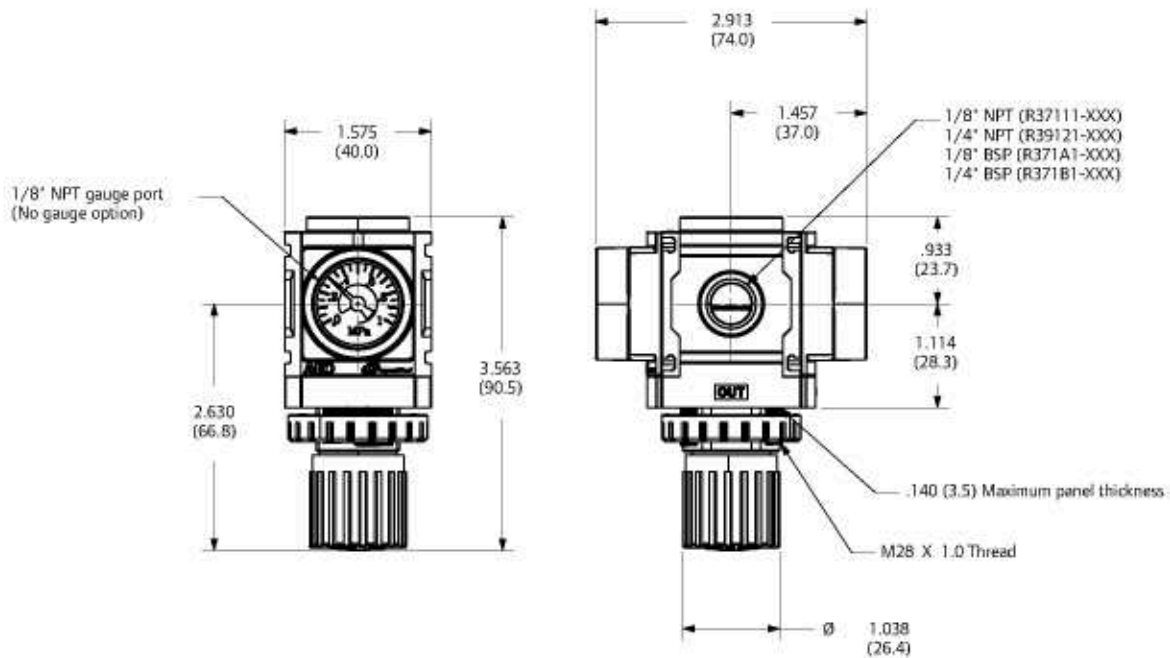
| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104390-1   | 1/8" NPT lockout valve     |
| 104390-2   | 1/4" NPT lockout valve     |
| 104394     | Modular clamp              |
| 104474-1   | 1/8" NPT pipe adapter      |
| 104474-2   | 1/4" NPT pipe adapter      |
| 104477-1   | 1/8" Check valve           |
| 104477-2   | 1/4" Check valve           |
| 104399     | T-type wall mount          |
| 104403     | L-type wall mount          |
| 104407     | C-type wall mount          |
| 104411-1-1 | 1/8" x 1/8" Manifold block |
| 104411-2-2 | 1/4" x 1/4" Manifold block |

## 1000 Series regulators

1/8" and 1/4" Ports

| Technical data             |                       |
|----------------------------|-----------------------|
| Diaphragm                  | Nitrile + acetal      |
| Regulator body             | Aluminum              |
| Regulator valve            | Brass + nitrile       |
| Regulator springs          | Steel                 |
| Gauge cover                | Nylon + polycarbonate |
| Regulator knob             | Acetal                |
| O-rings                    | Nitrile               |
| Max inlet pressure (psi)   | 250                   |
| Temperature range (F)      | 23 - 140              |
| Spring range options (psi) | 0 - 30                |
|                            | 0 - 60                |
|                            | 0 - 140               |
| Gauge port                 | 1/8"                  |
| Flow capacity — 1/8" port* | 45 scfm               |
| Flow capacity — 1/4" port* | 59 scfm               |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)





## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |         |  |  |
|-----------|------------|---------|--|--|
| Port size | Base model |         |  |  |
| 1/8"      | R371 1 1   | - X X X |  |  |
| 1/4"      | R371 2 1   | - X X X |  |  |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

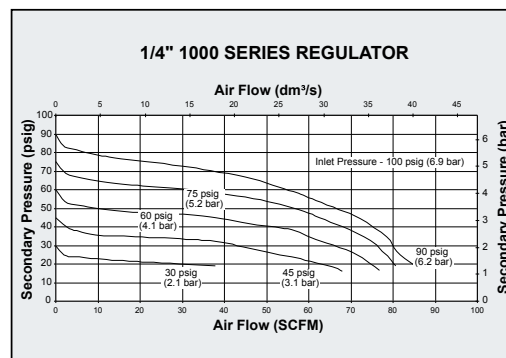
|                    |                                |                         |                       |
|--------------------|--------------------------------|-------------------------|-----------------------|
| <b>Thread type</b> | <b>Pressure range PSIG</b>     | <b>Relieving option</b> | <b>Control option</b> |
| 1 1/8" NPT         | 1 0 – 140 (no gauge)           | 0 Relieving             | 0 Standard knob       |
| 2 1/4" NPT         | 2 0 – 60 (no gauge)            | 2 Non-relieving         |                       |
| A 1/8" BSP         | 4 0 – 30 (no gauge)            |                         |                       |
| B 1/4" BSP         | 6 0 – 140 w/ flush-mount gauge |                         |                       |

## Popular configurations

| Port size<br>NPT                             | Pressure range<br>psi | Gauge             | Model      |
|--|-----------------------|-------------------|------------|
| <b>RELIEVING • STANDARD KNOB CONTROL</b>     |                       |                   |            |
| 1/8"   | 0 – 30                | No gauge          | R37111-400 |
| 1/8"   | 0 – 60                | No gauge          | R37111-200 |
| 1/8"   | 0 – 140               | No gauge          | R37111-100 |
| 1/8"   | 0 – 140               | Flush-mount gauge | R37111-600 |
| 1/4"   | 0 – 30                | No gauge          | R37121-400 |
| 1/4"   | 0 – 60                | No gauge          | R37121-200 |
| 1/4"   | 0 – 140               | No gauge          | R37121-100 |
| 1/4"   | 0 – 140               | Flush-mount gauge | R37121-600 |
| <b>NON-RELIEVING • STANDARD KNOB CONTROL</b> |                       |                   |            |
| 1/8"   | 0 – 30                | No gauge          | R37111-420 |
| 1/8"   | 0 – 60                | No gauge          | R37111-220 |
| 1/8"   | 0 – 140               | No gauge          | R37111-120 |
| 1/8"   | 0 – 140               | Flush-mount gauge | R37111-620 |
| 1/4"   | 0 – 30                | No gauge          | R37121-420 |
| 1/4"   | 0 – 60                | No gauge          | R37121-220 |
| 1/4"   | 0 – 140               | No gauge          | R37121-120 |
| 1/4"   | 0 – 140               | Flush-mount gauge | R37121-620 |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.

## 1/4" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104302 | Regulator service kit (relieving)     |
| 104303 | Regulator service kit (non-relieving) |
| 104304 | Tamper kit                            |
| 104305 | 0 – 30 psi Spring                     |
| 104306 | 0 – 60 psi Spring                     |
| 104307 | 0 – 140 psi Spring                    |
| 104310 | 0 – 140 psi Gauge flush mount         |

## Accessories

See page 65 for details

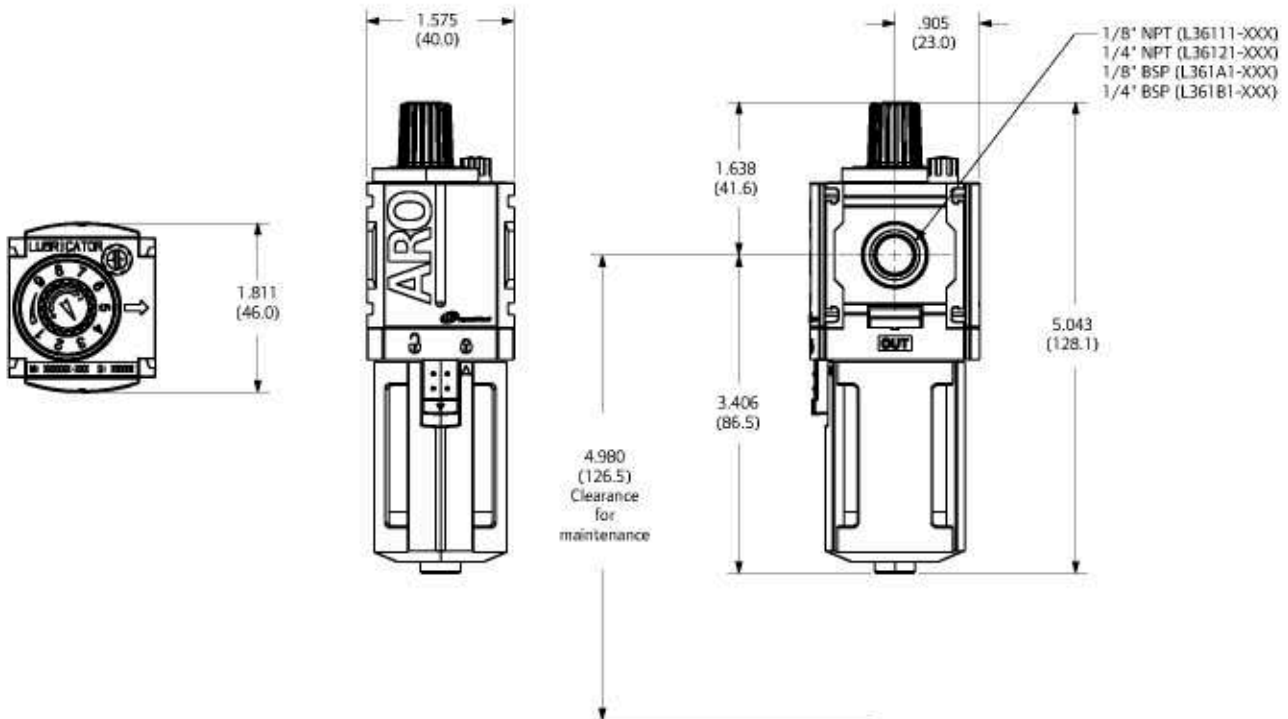
| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104390-1   | 1/8" NPT lockout valve     |
| 104390-2   | 1/4" NPT lockout valve     |
| 104394     | Modular clamp              |
| 104474-1   | 1/8" NPT pipe adapter      |
| 104474-2   | 1/4" NPT pipe adapter      |
| 104477-1   | 1/8" Check valve           |
| 104477-2   | 1/4" Check valve           |
| 104399     | T-type wall mount          |
| 104403     | L-type wall mount          |
| 104407     | C-type wall mount          |
| 104411-1-1 | 1/8" x 1/8" Manifold block |
| 104411-2-2 | 1/4" x 1/4" Manifold block |
| 104416     | Panel nut                  |
| 104467     | Gauge port block           |

# 1000 Series Lubricators

1/8" and 1/4" Ports

| Technical data             |                    |            |
|----------------------------|--------------------|------------|
| Lubricator body            | Aluminum           |            |
| Lubricator sight dome      | Nylon              |            |
| Lubricator inlet tube      | Urethane           |            |
| Seals                      | Nitrile            |            |
|                            | POLYCARBONATE BOWL | METAL BOWL |
| Max inlet pressure (psi)   | 150                | 250        |
| Temperature range (F)      | 23 – 125           | 23 – 175   |
| Bowl capacity (oz)         | 0.6                | 0.7        |
| Flow capacity — 1/8" Port* | 32 scfm            |            |
| Flow capacity — 1/4" Port* | 51 scfm            |            |

\*Inlet pressure 90 psi (6.2 bar) with 7 psi drop (0.5 bar)





## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |
|-----------|------------|---|---|---|---|
| Port size | Base model |   |   |   |   |
| 1/8"      | L3611      | 1 | X | X | X |
| 1/4"      | L3612      | 1 | X | X | X |

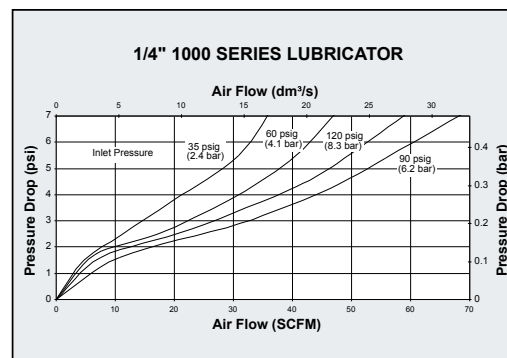
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|                    |                          |                          |                    |
|--------------------|--------------------------|--------------------------|--------------------|
| <b>Thread type</b> | <b>Adjustment option</b> | <b>Bowl option</b>       | <b>Fill option</b> |
| 1 1/8" NPT         | 1 Standard               | 0 Polycarbonate w/ guard | 0 Standard         |
| 2 1/4" NPT         |                          | 2 Metal                  |                    |
| A 1/8" BSP         |                          |                          |                    |
| B 1/4" BSP         |                          |                          |                    |

## Popular configurations

| Port size<br>NPT                   | Adjustment<br>option | Bowl cap<br>(oz) | Fill<br>option | Model      |
|------------------------------------|----------------------|------------------|----------------|------------|
| <b>METAL BOWL</b>                  |                      |                  |                |            |
| 1/8"                               | Standard             | 0.7              | Standard       | L36111-120 |
| 1/4"                               | Standard             | 0.7              | Standard       | L36121-120 |
| <b>POLYCARBONATE BOWL W/ GUARD</b> |                      |                  |                |            |
| 1/8"                               | Standard             | 0.6              | Standard       | L36111-100 |
| 1/4"                               | Standard             | 0.6              | Standard       | L36121-100 |

## 1/4" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                 |
|--------|-----------------------------|
| 104311 | Polycarbonate bowl w/ guard |
| 104312 | Metal bowl                  |
| 104313 | Lubricator bowl service kit |
| 104314 | Sight dome repair kit       |

## Accessories

See page 65 for details

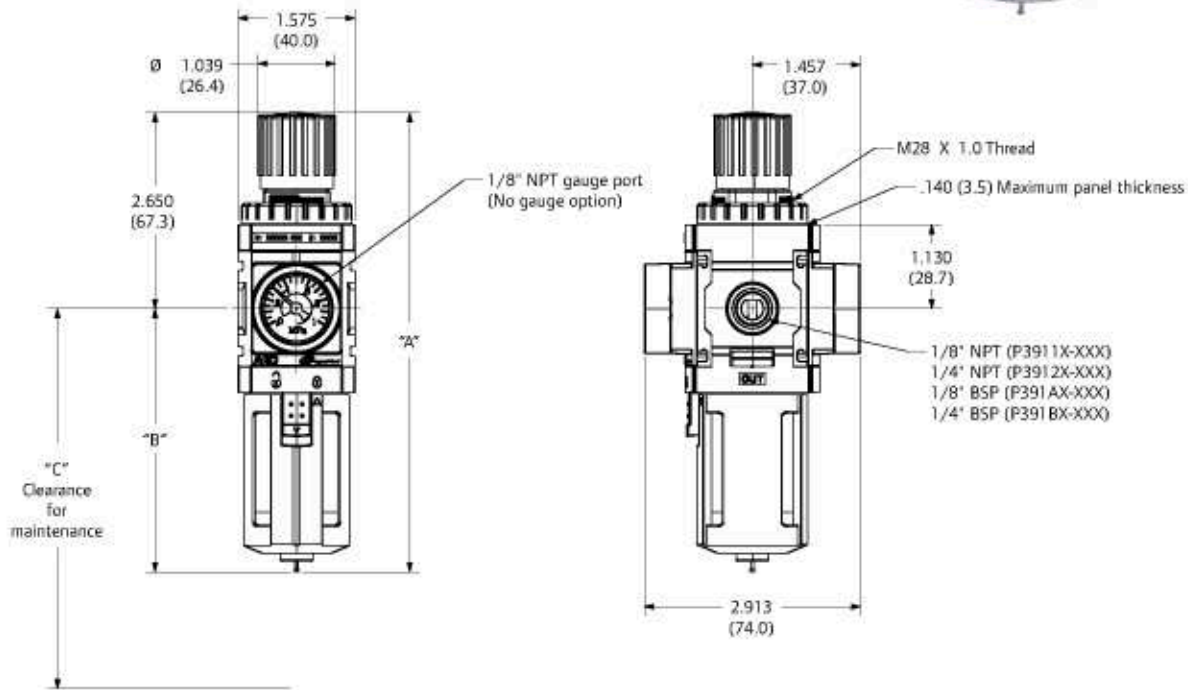
| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104390-1   | 1/8" NPT lockout valve     |
| 104390-2   | 1/4" NPT lockout valve     |
| 104394     | Modular clamp              |
| 104474-1   | 1/8" NPT pipe adapter      |
| 104474-2   | 1/4" NPT pipe adapter      |
| 104477-1   | 1/8" Check valve           |
| 104477-2   | 1/4" Check valve           |
| 104399     | T-type wall mount          |
| 104403     | L-type wall mount          |
| 104407     | C-type wall mount          |
| 104411-1-1 | 1/8" x 1/8" Manifold block |
| 104411-2-2 | 1/4" x 1/4" Manifold block |

# 1000 Series piggyback filters / regulators

1/8" and 1/4" Ports

| Technical data               |                    |            |
|------------------------------|--------------------|------------|
|                              | POLYCARBONATE BOWL | METAL BOWL |
| Max inlet pressure (psi)     | 150                | 250        |
| Temperature range (F)        | 23 – 125           | 23 – 175   |
| Spring range options (psi)   | 0 – 30             |            |
|                              | 0 – 60             |            |
|                              | 0 – 140            |            |
| Bowl cap — manual drain (oz) | 0.5                | 0.4        |
| Bowl cap — auto drain (oz)   | 0.7                | 0.7        |
| Gauge port                   | 1/8"               |            |
| Flow capacity — 1/8" port*   | 43 scfm            |            |
| Flow capacity — 1/4" port*   | 47 scfm            |            |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



| MODELS     | A (MM)        | B (MM)        | C (MM)        | DRAIN OPTION |
|------------|---------------|---------------|---------------|--------------|
| P391XX-XX0 | 6.197 (157.4) | 3.547 (90.1)  | 5.122 (130.1) | MANUAL       |
| P391XX-XX4 | 6.890 (175.0) | 4.240 (107.7) | 5.815 (147.7) | AUTOMATIC    |



## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |           |  |  |
|-----------|------------|-----------|--|--|
| Port size | Base model |           |  |  |
| 1/8"      | - P391 1   | X - X X X |  |  |
| 1/4"      | - P391 2   | X - X X X |  |  |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

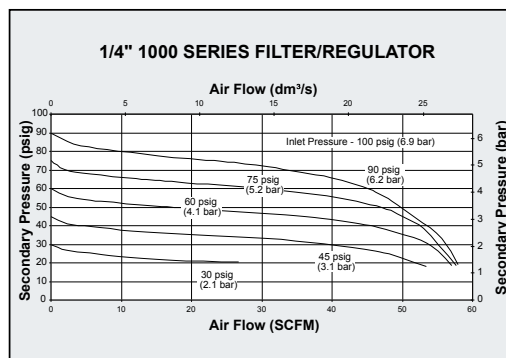
|                       |                                       |                                    |                                    |
|-----------------------|---------------------------------------|------------------------------------|------------------------------------|
| <b>Filter element</b> | <b>Pressure range PSIG</b>            | <b>Relieving bowl option</b>       | <b>Control / drain option</b>      |
| <b>4</b> 5-Micron     | <b>1</b> 0 – 140 (no gauge)           | <b>0</b> Relieving / poly w/ guard | <b>0</b> Standard knob / manual    |
|                       | <b>2</b> 0 – 60 (no gauge)            | <b>2</b> Relieving / metal         | <b>4</b> Standard knob / automatic |
| <b>Thread type</b>    | <b>4</b> 0 – 30 (no gauge)            |                                    |                                    |
| <b>1</b> 1/8" NPT     | <b>6</b> 0 – 140 w/ flush-mount gauge |                                    |                                    |
| <b>2</b> 1/4" NPT     |                                       |                                    |                                    |
| <b>A</b> 1/8" BSP     |                                       |                                    |                                    |
| <b>B</b> 1/4" BSP     |                                       |                                    |                                    |

## Popular configurations

| Port size<br>NPT                                 | Drain  | Spring range<br>psi | w/ Gauge | Model      |
|--|--------|---------------------|----------|------------|
| <b>5 MICRON • POLYCARBONATE BOWL • RELIEVING</b> |        |                     |          |            |
| 1/8"   | Manual | 0 – 140             | No       | P39114-100 |
| 1/8"   | Manual | 0 – 60              | No       | P39114-200 |
| 1/8"   | Manual | 0 – 30              | No       | P39114-400 |
| 1/8"   | Manual | 0 – 140             | Yes      | P39114-600 |
| 1/8"   | Auto   | 0 – 60              | No       | P39114-204 |
| 1/4"   | Manual | 0 – 140             | No       | P39124-100 |
| 1/4"   | Manual | 0 – 60              | No       | P39124-200 |
| 1/4"   | Manual | 0 – 30              | No       | P39124-400 |
| 1/4"   | Manual | 0 – 140             | Yes      | P39124-600 |
| 1/4"   | Auto   | 0 – 140             | No       | P39124-104 |
| 1/4"   | Auto   | 0 – 60              | No       | P39124-204 |
| 1/4"   | Auto   | 0 – 30              | No       | P39124-404 |
| 1/4"   | Auto   | 0 – 140             | Yes      | P39124-604 |
| <b>5 MICRON • METAL BOWL • RELIEVING</b>         |        |                     |          |            |
| 1/8"   | Auto   | 0 – 60              | Yes      | P39114-624 |
| 1/4"   | Manual | 0 – 140             | No       | P39124-120 |
| 1/4"   | Manual | 0 – 140             | Yes      | P39124-620 |
| 1/4"   | Auto   | 0 – 140             | No       | P39124-124 |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.

## 1/4" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104293 | Replacement auto drain*               |
| 104294 | Replacement manual drain              |
| 104295 | 5-Micron element                      |
| 104296 | 40-Micron element                     |
| 104298 | Poly bowl, manual drain               |
| 104299 | Poly bowl, auto drain                 |
| 104300 | Metal bowl, manual drain              |
| 104301 | Metal bowl, auto drain                |
| 104468 | Filter bowl service kit (O-ring)      |
| 104302 | Regulator service kit (relieving)     |
| 104303 | Regulator service kit (non-relieving) |
| 104304 | Tamper kit                            |
| 104305 | 0 – 30 psi Spring                     |
| 104306 | 0 – 60 psi Spring                     |
| 104307 | 0 – 140 psi Spring                    |
| 104310 | 0 – 140 psi Gauge flush mount         |
| 104416 | Panel Nut                             |

\* Replacement auto drains can only be used with auto drain bowls.

# 1000 Series combinations

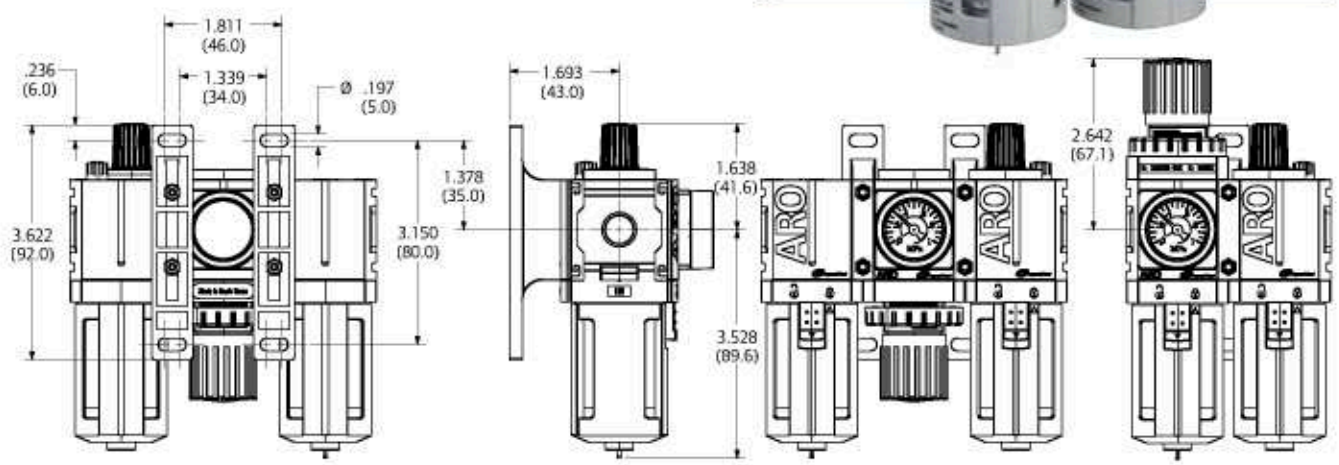
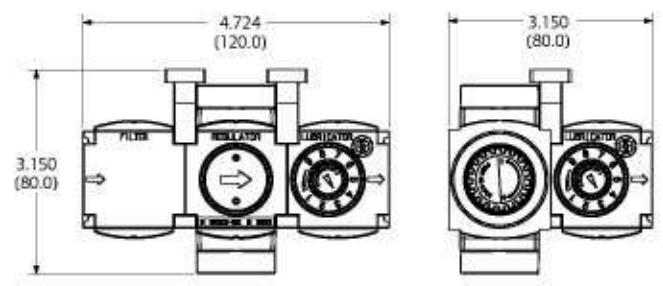
1/8" and 1/4" Ports

| Technical data                      |                    |            |
|-------------------------------------|--------------------|------------|
|                                     | POLYCARBONATE BOWL | METAL BOWL |
| Max inlet pressure (psi)            | 150                | 250        |
| Temperature range (F)               | 23 - 125           | 23 - 175   |
| Spring range options (psi)          | 0 - 140            |            |
| Filter element                      | 5 micron           |            |
| Filter bowl cap — manual drain (oz) | 0.5                | 0.4        |
| Filter bowl cap — auto drain (oz)   | 0.7                | 0.7        |
| Lubricator bowl capacity (oz)       | 0.6                | 0.7        |
| Gauge port                          | 1/8"               |            |
| Flow capacity — 1/8" - 2 unit*      | 36 scfm            |            |
| Flow capacity — 1/4" - 2 unit*      | 44 scfm            |            |
| Flow capacity — 1/8" - 3 unit*      | 34 scfm            |            |
| Flow capacity — 1/4" - 3 unit*      | 46 scfm            |            |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Photos shown with optional panel nut. If required, order 104416 panel nut separately.



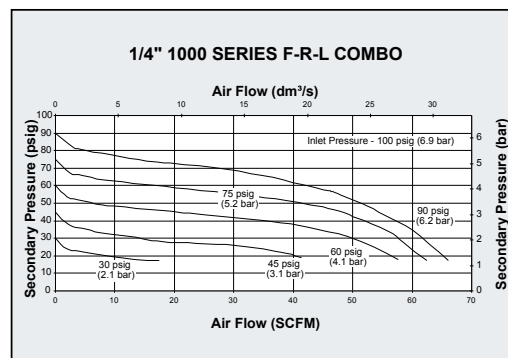
**F + R + L Combinations**

| Port size<br>NPT  | Filter     | Components<br>Regulator | Lubricator | Model      |
|---|------------|-------------------------|------------|------------|
| <b>MANUAL DRAIN • METAL BOWL • RELIEVING • W/ GAUGE</b>         |            |                         |            |            |
| 1/8"  | F35111-420 | R37111-600              | L36111-120 | C38111-820 |
| 1/4"  | F35121-420 | R37121-600              | L36121-120 | C38121-820 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL • RELIEVING • W/ GAUGE</b> |            |                         |            |            |
| 1/8"  | F35111-400 | R37111-600              | L36111-100 | C38111-800 |
| 1/4"  | F35121-400 | R37121-600              | L36121-100 | C38121-800 |
| <b>AUTO DRAIN • METAL BOWL • RELIEVING • W/ GAUGE</b>           |            |                         |            |            |
| 1/4"  | F35121-421 | R37121-600              | L36121-120 | C38121-821 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 1/4"  | F35121-401 | R37121-600              | L36121-100 | C38121-801 |

**F/R + L Combinations**

| Port size<br>NPT  | Filter-Regulator | Components<br>Lubricator | Model      |
|---|------------------|--------------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL • RELIEVING • W/ GAUGE</b>         |                  |                          |            |
| 1/8"  | P39114-620       | L36111-120               | C38111-620 |
| 1/4"  | P39124-620       | L36121-120               | C38121-620 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL • RELIEVING • W/ GAUGE</b> |                  |                          |            |
| 1/8"  | P39114-600       | L36111-100               | C38111-600 |
| 1/4"  | P39124-600       | L36121-100               | C38121-600 |
| <b>AUTO DRAIN • METAL BOWL • RELIEVING • W/ GAUGE</b>           |                  |                          |            |
| 1/4"  | P39124-624       | L36121-120               | C38121-621 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 1/4"  | P39124-604       | L36121-100               | C38121-601 |

**Note:** Other combinations may be assembled by purchasing the individual components separately. Modular connector kits are required to connect the individual units together.

**1/4" Pressure drop test**

See page 77 for additional flow charts

**Replacement parts**

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104293 | Replacement auto drain*               |
| 104294 | Replacement manual drain              |
| 104295 | 5-Micron element                      |
| 104296 | 40-Micron element                     |
| 104297 | 0.3-Micron element                    |
| 104298 | Poly bowl, manual drain               |
| 104299 | Poly bowl, auto drain                 |
| 104300 | Metal bowl, manual drain              |
| 104301 | Metal bowl, auto drain                |
| 104468 | Filter bowl service kit (O-ring)      |
| 104459 | Coalescing filter bowl, manual drain  |
| 104460 | Coalescing filter bowl, auto drain    |
| 104302 | Regulator service kit (relieving)     |
| 104303 | Regulator service kit (non-relieving) |
| 104304 | Tamper kit                            |
| 104305 | 0 - 30 psi Spring                     |
| 104306 | 0 - 60 psi Spring                     |
| 104307 | 0 - 140 psi Spring                    |
| 104310 | 0 - 140 psi Gauge flush mount         |
| 104311 | Polycarbonate bowl w/ guard           |
| 104312 | Metal bowl                            |
| 104313 | Lubricator bowl service kit           |
| 104314 | Sight dome repair kit                 |
| 104416 | Panel Nut                             |

\* Replacement auto drains can only be used with auto drain bowls.



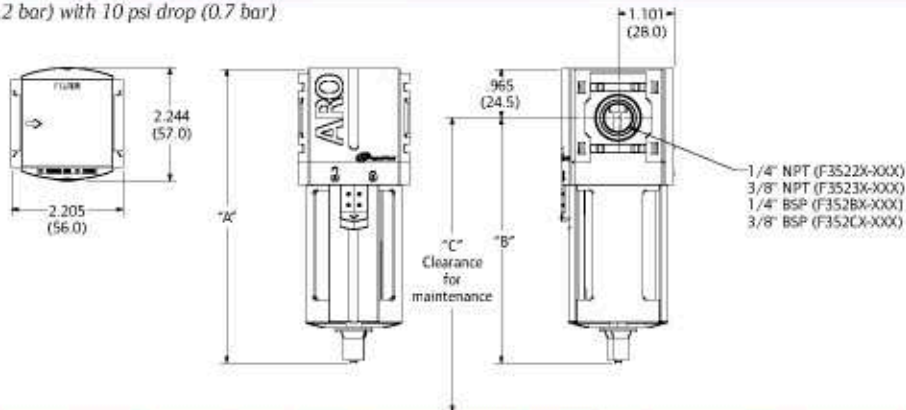
# 1500 Series filters

1/4" and 3/8" Ports

| Technical data               |                    |                              |
|------------------------------|--------------------|------------------------------|
| Polycarbonate bowl           | Polycarbonate      |                              |
| Polycarbonate bowl guard     | Nylon              |                              |
| Metal bowl                   | Aluminum           |                              |
| Metal bowl sight glass       | Nylon              |                              |
| Filter body                  | Aluminum           |                              |
| Manual drain                 | Brass + nitrile    |                              |
| Auto drain                   | Acetal             |                              |
| Standard filter              | Polyethylene       |                              |
| Coalescing filter            | HEPA paper + felt  |                              |
| Seals                        | Nitrile            |                              |
| Filter baffle                | Acetal             |                              |
|                              | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)     | 150                | 250                          |
| Temperature range (F)        | 23 – 125           | 23 – 175                     |
| Bowl cap — manual drain (oz) | 1.3                | 1.3                          |
| Bowl cap — auto drain (oz)   | 1.0                | 1.0                          |
| Bowl cap — coal manual drain | 1.2                |                              |
| Bowl cap — coal auto drain   | 1.0                |                              |
| Flow capacity — 1/4" port*   | 73 scfm            |                              |
| Flow capacity — 3/8" port*   | 107 scfm           |                              |



\*Inlet pressure 90 psi (6.2 bar) with 10 psi drop (0.7 bar)



| MODEL      | A (MM)        | B (MM)        | C (MM)        | BOWL                 | DRAIN     |
|------------|---------------|---------------|---------------|----------------------|-----------|
| F352XX-X00 | 6.161 (156.5) | 5.197 (132.0) | 7.197 (182.8) | POLYCARBONATE        | MANUAL    |
| F352XX-X01 | 7.028 (178.5) | 6.063 (154.0) | 8.063 (204.8) | POLYCARBONATE        | AUTOMATIC |
| F352XX-X10 | 6.161 (156.5) | 5.197 (132.0) | 7.072 (179.6) | METAL W/ SIGHT GLASS | MANUAL    |
| F352XX-X11 | 7.028 (178.5) | 6.063 (154.0) | 7.938 (201.6) | METAL W/ SIGHT GLASS | AUTOMATIC |
| F352XX-X20 | 6.161 (156.5) | 5.197 (132.0) | 7.072 (179.6) | METAL                | MANUAL    |
| F352XX-X21 | 7.028 (178.5) | 6.063 (154.0) | 7.938 (201.6) | METAL                | AUTOMATIC |

### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |  |
|-----------|------------|---|---|---|---|--|
| Port size | Base model | 1 | X | X | X | <b>Note:</b> Some menu combinations not available. Please consult price book to verify. Popular options are shown in <b>red</b> below. |
| 1/4"      | - F352     | 2 | X | X | X |  |
| 3/8"      | - F352     | 3 | X | X | X |  |

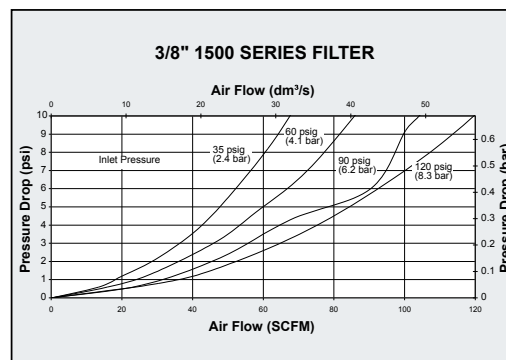
  

|                    |                                |                                 |                     |
|--------------------|--------------------------------|---------------------------------|---------------------|
| <b>Thread type</b> | <b>Filter element</b>          | <b>Bowl option</b>              | <b>Drain option</b> |
| <b>2</b> 1/4" NPT  | <b>3</b> 0.3-Micron coalescing | <b>0</b> Polycarbonate w/ guard | <b>0</b> Manual     |
| <b>3</b> 3/8" NPT  | <b>4</b> 5 micron              | <b>1</b> Metal w/ sight glass   | <b>1</b> Automatic  |
| <b>B</b> 1/4" BSP  |                                | <b>2</b> Metal                  |                     |
| <b>C</b> 3/8" BSP  |                                |                                 |                     |

### Popular configurations

| Port size<br>NPT                                  | Filter type | Bowl cap (oz) | Element (microns) | Model      |
|---|-------------|---------------|-------------------|------------|
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD</b> |             |               |                   |            |
| 1/4"  | Coalescing  | 1.2           | 0.3               | F35221-300 |
| 1/4"  | Standard    | 1.3           | 5                 | F35221-400 |
| 3/8"  | Coalescing  | 1.2           | 0.3               | F35231-300 |
| 3/8"  | Standard    | 1.3           | 5                 | F35231-400 |
| <b>MANUAL DRAIN • METAL BOWL</b>                  |             |               |                   |            |
| 1/4"  | Coalescing  | 1.2           | 0.3               | F35221-320 |
| 1/4"  | Standard    | 1.3           | 5                 | F35221-420 |
| 3/8"  | Coalescing  | 1.2           | 0.3               | F35231-320 |
| 3/8"  | Standard    | 1.3           | 5                 | F35231-420 |
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS</b>   |             |               |                   |            |
| 1/4"  | Coalescing  | 1.2           | 0.3               | F35221-310 |
| 1/4"  | Standard    | 1.3           | 5                 | F35221-410 |
| 3/8"  | Coalescing  | 1.2           | 0.3               | F35231-310 |
| 3/8"  | Standard    | 1.3           | 5                 | F35231-410 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD</b>   |             |               |                   |            |
| 1/4"  | Coalescing  | 1.0           | 0.3               | F35221-301 |
| 1/4"  | Standard    | 1.0           | 5                 | F35221-401 |
| 3/8"  | Coalescing  | 1.0           | 0.3               | F35231-301 |
| 3/8"  | Standard    | 1.0           | 5                 | F35231-401 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS</b>     |             |               |                   |            |
| 1/4"  | Coalescing  | 1.0           | 0.3               | F35221-311 |
| 1/4"  | Standard    | 1.0           | 5                 | F35221-411 |
| 3/8"  | Coalescing  | 1.0           | 0.3               | F35231-311 |
| 3/8"  | Standard    | 1.0           | 5                 | F35231-411 |

### 3/8" Pressure drop test



See page 77 for additional flow charts

1500 Series

### Replacement parts

| MODEL  | DESCRIPTION                             |
|--------|---|
| 104315 | Replacement auto drain*                 |
| 104316 | Replacement manual drain                |
| 104422 | 5-Micron element                        |
| 104423 | 40-Micron element                       |
| 104424 | 0.3-Micron element                      |
| 104425 | Poly bowl, manual drain                 |
| 104426 | Poly bowl, auto drain                   |
| 104427 | Metal bowl w/ sight glass, manual drain |
| 104428 | Metal bowl w/ sight glass, auto drain   |
| 104481 | Metal bowl, manual drain                |
| 104482 | Metal bowl, auto drain                  |
| 104429 | Filter bowl service kit (O-ring)        |

\* Replacement auto drains can only be used with auto drain bowls.

### Accessories

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104391-2   | 1/4" NPT lock-out valve    |
| 104391-3   | 3/8" NPT lock-out valve    |
| 104395     | Modular clamp              |
| 104475-2   | 1/4" NPT pipe adapter      |
| 104475-3   | 3/8" NPT pipe adapter      |
| 104478-2   | 1/4" Check valve           |
| 104478-3   | 3/8" Check valve           |
| 104400     | T-type wall mount          |
| 104404     | L-type wall mount          |
| 104408     | C-type wall mount          |
| 104412-3-1 | 3/8" x 1/8" Manifold block |
| 104412-3-2 | 3/8" x 1/4" Manifold block |



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)

# 1500 Series regulators

1/4" and 3/8" Ports

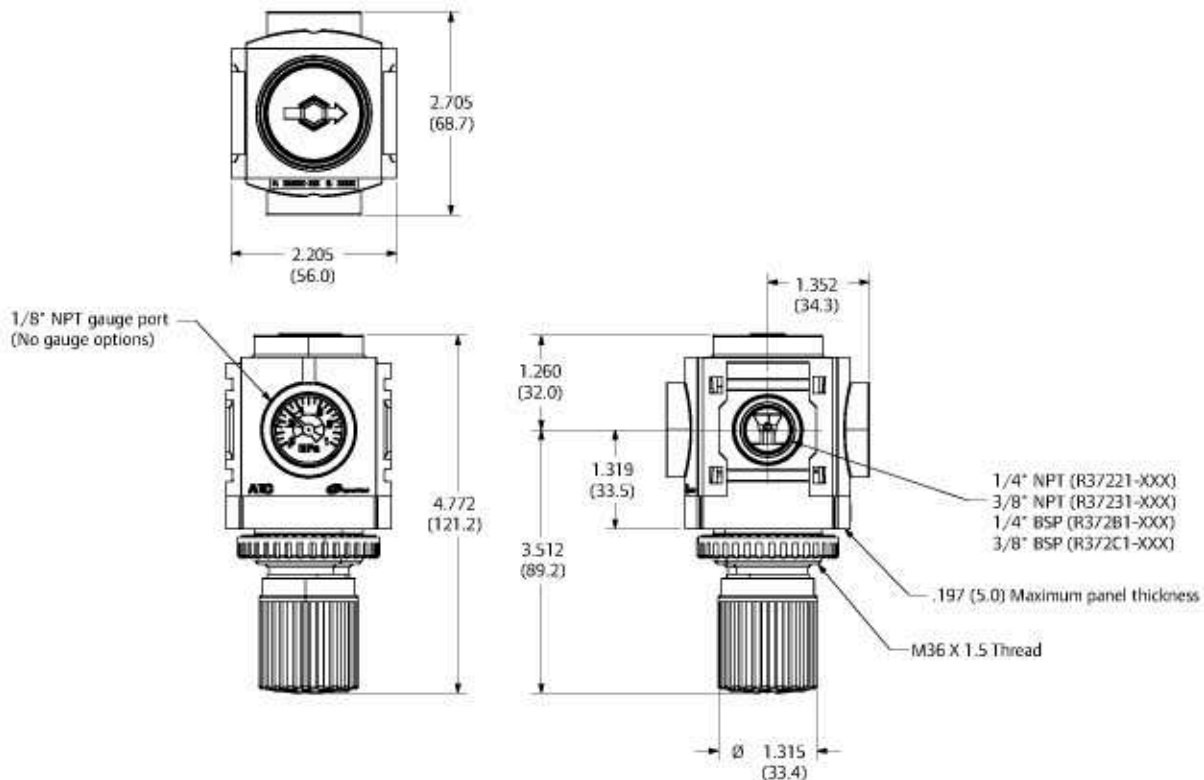
## Technical data

|                            |                       |
|----------------------------|-----------------------|
| Diaphragm                  | Nitrile + nylon       |
| Regulator body             | Aluminum              |
| Regulator valve            | Nitrile + nylon       |
| Regulator springs          | Steel                 |
| Gauge cover                | Nylon + polycarbonate |
| Regulator knob             | Acetal                |
| O-rings                    | Nitrile               |
| Max inlet pressure (psi)   | 250                   |
| Temperature range (F)      | 23 - 140              |
| Spring range options (psi) | 0 - 30                |
|                            | 0 - 60                |
|                            | 0 - 140               |
| Gauge port                 | 1/8"                  |
| *Flow capacity — 1/4" port | 86 scfm               |
| *Flow capacity — 3/8" port | 113 scfm              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Panel nut comes standard on all individual regulator units





### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |         |  |  |
|-----------|------------|---------|--|--|
| Port size | Base model |         |  |  |
| 1/4"      | R372 2 1   | - X X X |  |  |
| 3/8"      | R372 3 1   | - X X X |  |  |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

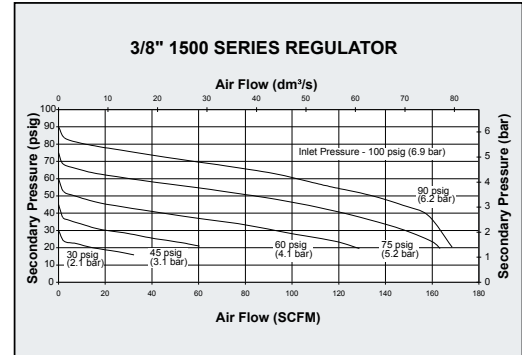
|                    |                                       |                         |                        |
|--------------------|---------------------------------------|-------------------------|------------------------|
| <b>Thread type</b> | <b>Pressure range PSIG</b>            | <b>Relieving option</b> | <b>Control option</b>  |
| <b>2</b> 1/4" NPT  | <b>1</b> 0 – 140 (no gauge)           | <b>0</b> Relieving      | <b>0</b> Standard knob |
| <b>3</b> 3/8" NPT  | <b>2</b> 0 – 60 (no gauge)            | <b>2</b> Non-relieving  |                        |
| <b>B</b> 1/4" BSP  | <b>4</b> 0 – 30 (no gauge)            |                         |                        |
| <b>C</b> 3/8" BSP  | <b>6</b> 0 – 140 w/ flush-mount gauge |                         |                        |

### Popular configurations

| Port size NPT                                | Pressure range psi | Gauge             | Model      |
|--|--------------------|-------------------|------------|
| <b>RELIEVING • STANDARD KNOB CONTROL</b>     |                    |                   |            |
| 1/4"   | 0 – 30             | No gauge          | R37221-400 |
| 1/4"   | 0 – 60             | No gauge          | R37221-200 |
| 1/4"   | 0 – 140            | No gauge          | R37221-100 |
| 1/4"   | 0 – 140            | Flush-mount gauge | R37221-600 |
| 3/8"   | 0 – 30             | No gauge          | R37231-400 |
| 3/8"   | 0 – 60             | No gauge          | R37231-200 |
| 3/8"   | 0 – 140            | No gauge          | R37231-100 |
| 3/8"   | 0 – 140            | Flush-mount gauge | R37231-600 |
| <b>NON-RELIEVING • STANDARD KNOB CONTROL</b> |                    |                   |            |
| 1/4"   | 0 – 30             | No gauge          | R37221-420 |
| 1/4"   | 0 – 60             | No gauge          | R37221-220 |
| 1/4"   | 0 – 140            | No gauge          | R37221-120 |
| 1/4"   | 0 – 140            | Flush-mount gauge | R37221-620 |
| 3/8"   | 0 – 30             | No gauge          | R37231-420 |
| 3/8"   | 0 – 60             | No gauge          | R37231-220 |
| 3/8"   | 0 – 140            | No gauge          | R37231-120 |
| 3/8"   | 0 – 140            | Flush-mount gauge | R37231-620 |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.

### 3/8" Pressure drop test



See page 77 for additional flow charts

1500 Series

### Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104430 | Regulator service kit (relieving)     |
| 104431 | Regulator service kit (non-relieving) |
| 104432 | Tamper kit                            |
| 104433 | 0 – 30 psi Spring                     |
| 104434 | 0 – 60 psi Spring                     |
| 104435 | 0 – 140 psi Spring                    |
| 104310 | 0 – 140 psi Gauge flush mount         |

### Accessories

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104391-2   | 1/4" NPT lockout valve     |
| 104391-3   | 3/8" NPT lockout valve     |
| 104395     | Modular clamp              |
| 104475-2   | 1/4" NPT pipe adapter      |
| 104475-3   | 3/8" NPT pipe adapter      |
| 104478-2   | 1/4" Check valve           |
| 104478-3   | 3/8" Check valve           |
| 104400     | T-type wall mount          |
| 104404     | L-type wall mount          |
| 104408     | C-type wall mount          |
| 104412-3-1 | 3/8" x 1/8" Manifold block |
| 104412-3-2 | 3/8" x 1/4" Manifold block |
| 104417     | Panel nut                  |
| 104467     | Gauge port block           |

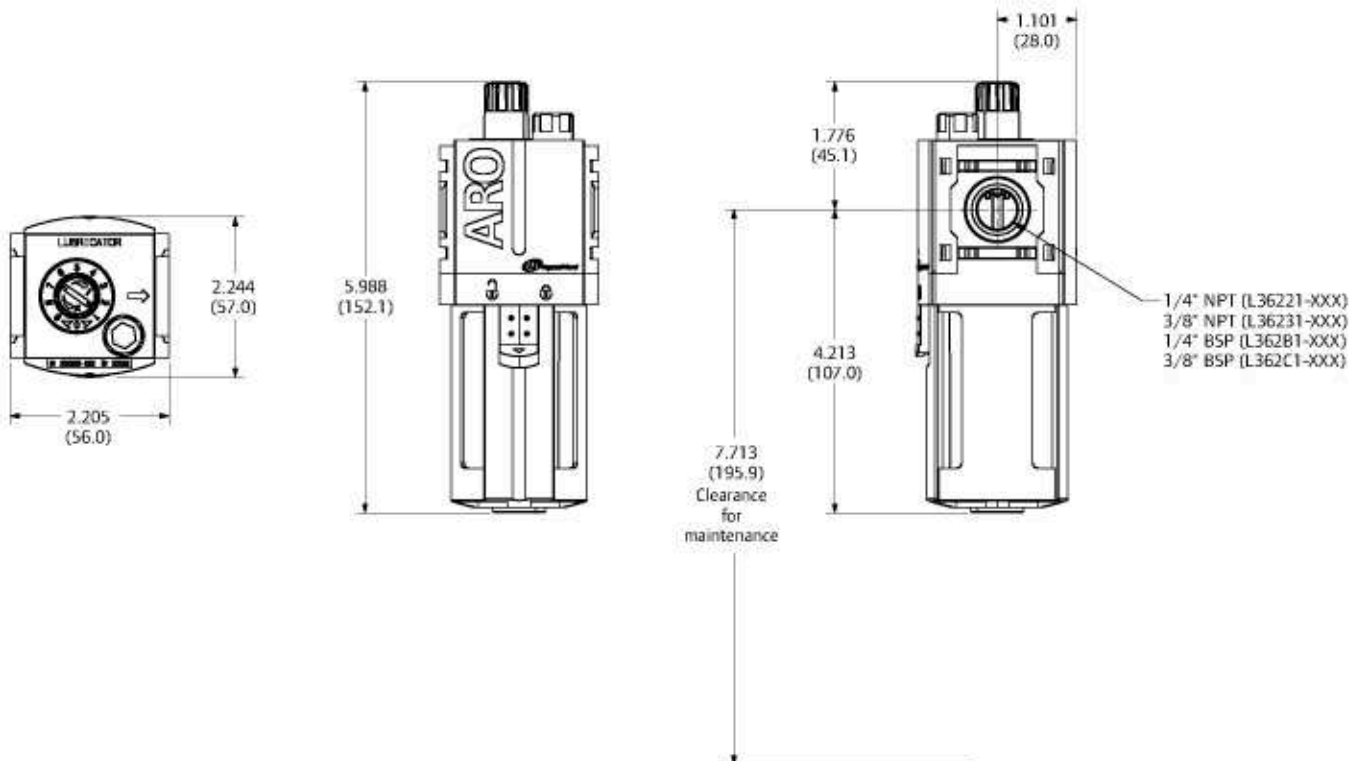


# 1500 Series lubricators

1/4" and 3/8" Ports

| Technical data             |                    |                              |
|----------------------------|--------------------|------------------------------|
| Lubricator body            | Aluminum           |                              |
| Lubricator sight dome      | Nylon              |                              |
| Lubricator inlet tube      | Urethane           |                              |
| Seals                      | Nitrile            |                              |
|                            | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)   | 150                | 250                          |
| Temperature range (F)      | 23 – 125           | 23 – 175                     |
| Bowl capacity (oz)         | 1.9                | 1.5                          |
| Flow capacity — 1/4" port* | 51 scfm            |                              |
| Flow capacity — 3/8" port* | 105 scfm           |                              |

\*Inlet pressure 90 psi (6.2 bar) with 7 psi drop (0.5 bar)



## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

| Port size | Base model | Adjustment option | Bowl option   | Fill option |
|-----------|------------|-------------------|---|-------------|
| 1/4"      | L362 2     | 1 - X X X         | 0 Polycarbonate w/ guard<br>1 Metal w/ sight glass<br>2 Metal | 0 Standard  |
| 3/8"      | L362 3     | 1 - X X X         |   |             |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

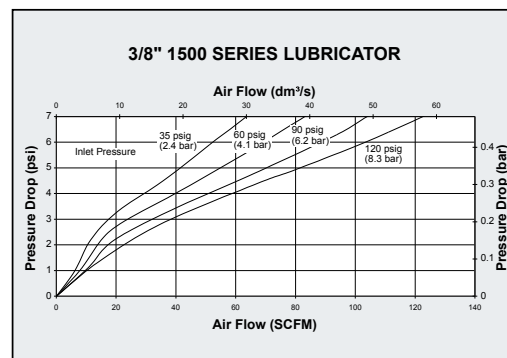
**Thread type**

| Option | Thread type |
|--------|-------------|
| 2      | 1/4" NPT    |
| 3      | 3/8" NPT    |
| B      | 1/4" BSP    |
| C      | 3/8" BSP    |

## Popular configurations

| Port size NPT                      | Adjustment option | Bowl cap (oz) | Fill option | Model      |
|------------------------------------|-------------------|---------------|-------------|------------|
| <b>METAL BOWL</b>                  |                   |               |             |            |
| 1/4"                               | Standard          | 1.5           | Standard    | L36221-120 |
| 3/8"                               | Standard          | 1.5           | Standard    | L36231-120 |
| <b>METAL BOWL W/ SIGHT GLASS</b>   |                   |               |             |            |
| 1/4"                               | Standard          | 1.5           | Standard    | L36221-110 |
| 3/8"                               | Standard          | 1.5           | Standard    | L36231-110 |
| <b>POLYCARBONATE BOWL W/ GUARD</b> |                   |               |             |            |
| 1/4"                               | Standard          | 1.9           | Standard    | L36221-100 |
| 3/8"                               | Standard          | 1.9           | Standard    | L36231-100 |

## 3/8" Pressure drop test



See page 77 for additional flow charts

1500 Series

## Replacement parts

| MODEL  | DESCRIPTION                 |
|--------|-----------------------------|
| 104439 | Polycarbonate bowl w/ guard |
| 104440 | Metal bowl w/ sight glass   |
| 104483 | Metal bowl                  |
| 104441 | Lubricator bowl service kit |
| 104442 | Sight dome repair kit       |

## Accessories

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104391-2   | 1/4" NPT lockout valve     |
| 104391-3   | 3/8" NPT lockout valve     |
| 104395     | Modular clamp              |
| 104475-2   | 1/4" NPT pipe adapter      |
| 104475-3   | 3/8" NPT pipe adapter      |
| 104478-2   | 1/4" Check valve           |
| 104478-3   | 3/8" Check valve           |
| 104400     | T-type wall mount          |
| 104404     | L-type wall mount          |
| 104408     | C-type wall mount          |
| 104412-3-1 | 3/8" x 1/8" Manifold block |
| 104412-3-2 | 3/8" x 1/4" Manifold block |



# 1500 Series piggyback filters / regulators

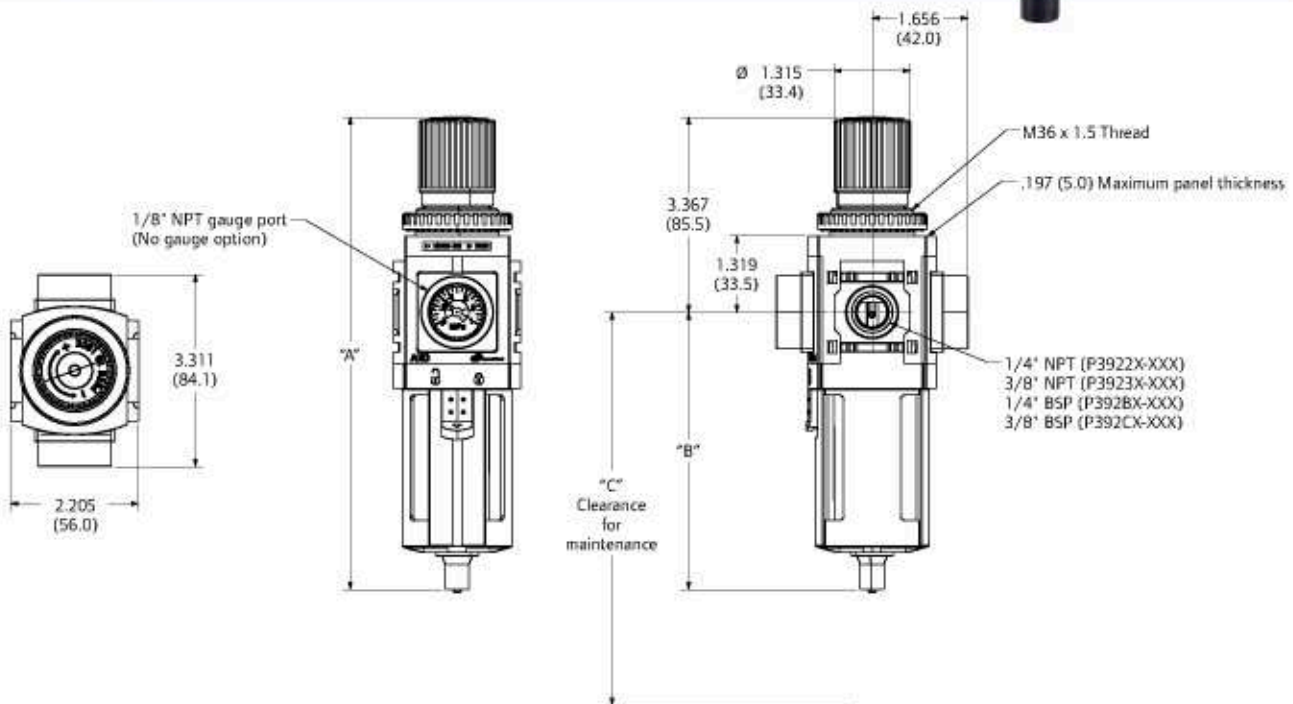
1/4" and 3/8" Ports

| Technical data               |                    |                              |
|------------------------------|--------------------|------------------------------|
|                              | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)     | 150                | 250                          |
| Temperature range (F)        | 23 - 125           | 23 - 175                     |
| Spring range options (psi)   | 0 - 30             |                              |
|                              | 0 - 60             |                              |
|                              | 0 - 140            |                              |
| Bowl cap — manual drain (oz) | 1.3                | 1.3                          |
| Bowl cap — auto drain (oz)   | 1.0                | 1.0                          |
| Bowl cap — coal manual drain | 1.2                |                              |
| Bowl cap — coal auto drain   | 1.0                |                              |
| Gauge port                   | 1/8"               |                              |
| Flow capacity — 1/4" port*   | 72 scfm            |                              |
| Flow capacity — 3/8" port*   | 90 scfm            |                              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Panel nut comes standard on all individual piggyback units



| MODEL      | A (MM)        | B (MM)        | C (MM)        | DRAIN     |
|------------|---------------|---------------|---------------|-----------|
| P392XX-XX0 | 8.150 (207.0) | 4.783 (121.5) | 6.783 (172.3) | MANUAL    |
| P392XX-XX4 | 9.016 (229.0) | 5.650 (143.5) | 7.650 (194.3) | AUTOMATIC |

## How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

| Port size | Base model |   |   |   |
|-----------|------------|---|---|---|
| 1/4"      | - P392 2   | X | X | X |
| 3/8"      | - P392 3   | X | X | X |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

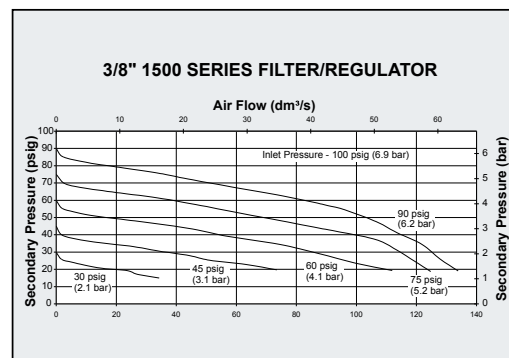
| Filter element                 | Pressure range PSIG                   | Relieving bowl option                     | Control / drain option             |
|--------------------------------|---------------------------------------|---|------------------------------------|
| <b>3</b> 0.3-Micron coalescing | <b>1</b> 0 – 140 (no gauge)           | <b>0</b> Relieving / poly w/ guard        | <b>0</b> Standard knob / manual    |
| <b>4</b> 5-Micron              | <b>2</b> 0 – 60 (no gauge)            | <b>1</b> Relieving / metal w/ sight glass | <b>4</b> Standard knob / automatic |
| <b>Thread type</b>             | <b>4</b> 0 – 30 (no gauge)            | <b>2</b> Relieving / metal                |                                    |
| <b>2</b> 1/4" NPT              | <b>6</b> 0 – 140 w/ flush-mount gauge |   |                                    |
| <b>3</b> 3/8" NPT              |                                       |   |                                    |
| <b>B</b> 1/4" BSP              |                                       |   |                                    |
| <b>C</b> 3/8" BSP              |                                       |   |                                    |

## Popular configurations

| Port size NPT   | Drain  | Spring range psi | w/ Gauge | Model      |
|---|--------|------------------|----------|------------|
| <b>5 MICRON • POLYCARBONATE BOWL • RELIEVING</b>        |        |                  |          |            |
| 1/4"  | Manual | 0 – 140          | No       | P39224-100 |
| 1/4"  | Manual | 0 – 140          | Yes      | P39224-600 |
| 1/4"  | Auto   | 0 – 140          | No       | P39224-104 |
| 1/4"  | Auto   | 0 – 140          | Yes      | P39224-604 |
| 3/8"  | Manual | 0 – 140          | No       | P39234-100 |
| 3/8"  | Manual | 0 – 140          | Yes      | P39234-600 |
| 3/8"  | Auto   | 0 – 140          | No       | P39234-104 |
| 3/8"  | Auto   | 0 – 140          | Yes      | P39234-604 |
| <b>5 MICRON • METAL BOWL W/ SIGHT GLASS • RELIEVING</b> |        |                  |          |            |
| 1/4"  | Manual | 0 – 140          | No       | P39224-110 |
| 1/4"  | Manual | 0 – 60           | No       | P39224-210 |
| 1/4"  | Manual | 0 – 140          | Yes      | P39224-610 |
| 1/4"  | Auto   | 0 – 140          | No       | P39224-114 |
| 3/8"  | Manual | 0 – 140          | No       | P39234-110 |
| 3/8"  | Manual | 0 – 140          | Yes      | P39234-610 |
| <b>5 MICRON • METAL BOWL • RELIEVING</b>                |        |                  |          |            |
| 1/4"  | Manual | 0 – 140          | Yes      | P39224-620 |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.

## 3/8" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                             |
|--------|---|
| 104315 | Replacement auto drain*                 |
| 104316 | Replacement manual drain                |
| 104424 | 0.3-Micron element                      |
| 104422 | 5-Micron element                        |
| 104423 | 40-Micron element                       |
| 104425 | Poly bowl, manual drain                 |
| 104426 | Poly bowl, auto drain                   |
| 104427 | Metal bowl w/ sight glass, manual drain |
| 104428 | Metal bowl w/ sight glass, auto drain   |
| 104481 | Metal bowl, manual drain                |
| 104482 | Metal bowl, auto drain                  |
| 104429 | Filter bowl service kit (O-ring)        |
| 104430 | Regulator service kit (relieving)       |
| 104431 | Regulator service kit (non-relieving)   |
| 104432 | Tamper kit                              |
| 104433 | 0 – 30 psi Spring                       |
| 104434 | 0 – 60 psi Spring                       |
| 104435 | 0 – 140 psi Spring                      |
| 104310 | 0 – 140 psi Gauge flush mount           |
| 104417 | Panel Nut                               |

\* Replacement auto drains can only be used with auto drain bowls.

# 1500 Series combinations

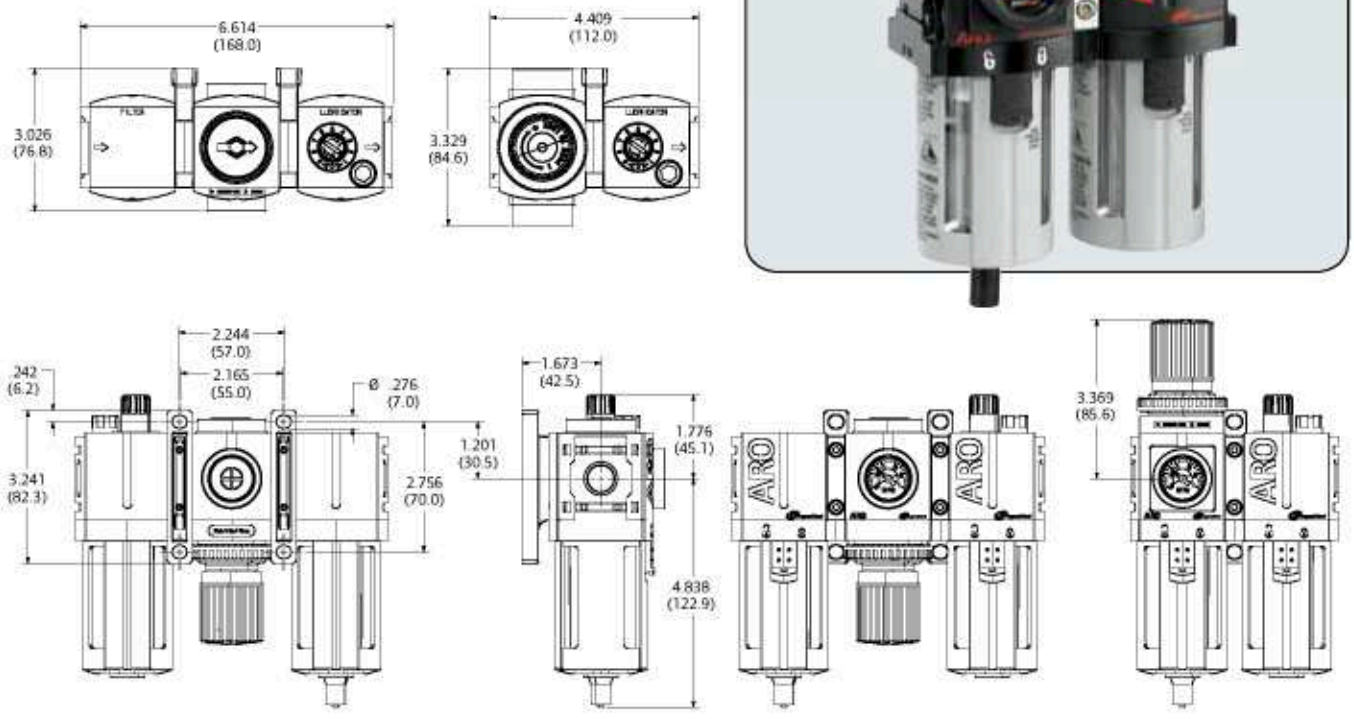
1/4" and 3/8" Ports

| Technical data                      |                    |                              |
|-------------------------------------|--------------------|------------------------------|
|                                     | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)            | 150                | 250                          |
| Temperature range (F)               | 23 - 125           | 23 - 175                     |
| Spring range options (psi)          | 0 - 140            |                              |
| Filter element                      | 5 micron           |                              |
| Filter bowl cap — manual drain (oz) | 1.3                | 1.3                          |
| Filter bowl cap — auto drain (oz)   | 1.0                | 1.0                          |
| Lubricator bowl capacity (oz)       | 1.9                | 1.5                          |
| Gauge port                          | 1/8"               |                              |
| Flow capacity — 1/4" - 2 unit*      | 58 scfm            |                              |
| Flow capacity — 3/8" - 2 unit*      | 71 scfm            |                              |
| Flow capacity — 1/4" - 3 unit*      | 61 scfm            |                              |
| Flow capacity — 3/8" - 3 unit*      | 85 scfm            |                              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Photos shown with optional panel nut. If required, order 104417 panel nut separately.





### F + R + L Combinations

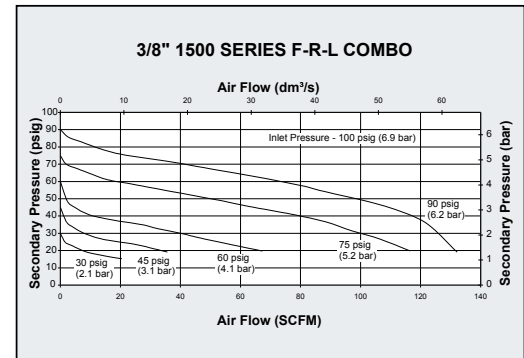
| Port size<br>NPT   | Filter     | Components<br>Regulator | Lubricator | Model      |
|--|------------|-------------------------|------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 1/4"   | F35221-410 | R37221-600              | L36221-110 | C38221-810 |
| 3/8"   | F35231-410 | R37231-600              | L36231-110 | C38231-810 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b> |            |                         |            |            |
| 1/4"   | F35221-400 | R37221-600              | L36221-100 | C38221-800 |
| 3/8"   | F35231-400 | R37231-600              | L36231-100 | C38231-800 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>     |            |                         |            |            |
| 1/4"   | F35221-411 | R37221-600              | L36221-110 | C38221-811 |
| 3/8"   | F35231-411 | R37231-600              | L36231-110 | C38231-811 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 1/4"   | F35221-401 | R37221-600              | L36221-100 | C38221-801 |
| 3/8"   | F35231-401 | R37231-600              | L36231-100 | C38231-801 |

### F/R + L Combinations

| Port size<br>NPT   | Filter-regulator | Components<br>Lubricator | Model      |
|--|------------------|--------------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 1/4"   | P39224-610       | L36221-110               | C38221-610 |
| 3/8"   | P39234-610       | L36231-110               | C38231-610 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b> |                  |                          |            |
| 1/4"   | P39224-600       | L36221-100               | C38221-600 |
| 3/8"   | P39234-600       | L36231-100               | C38231-600 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>     |                  |                          |            |
| 1/4"   | P39224-614       | L36221-110               | C38221-611 |
| 3/8"   | P39234-614       | L36231-110               | C38231-611 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 1/4"   | P39224-604       | L36221-100               | C38221-601 |
| 3/8"   | P39234-604       | L36231-100               | C38231-601 |

**Note:** Other combinations may be assembled by purchasing the individual components separately. Modular connector kits are required to connect the individual units together.

### 3/8" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                             |
|--------|---|
| 104315 | Replacement auto drain*                 |
| 104316 | Replacement manual drain                |
| 104422 | 5-Micron element                        |
| 104423 | 40-Micron element                       |
| 104424 | 0.3-Micron element                      |
| 104425 | Poly bowl, manual drain                 |
| 104426 | Poly bowl, auto drain                   |
| 104427 | Metal bowl w/ sight glass, manual drain |
| 104428 | Metal bowl w/ sight glass, auto drain   |
| 104481 | Metal bowl, manual drain                |
| 104482 | Metal bowl, auto drain                  |
| 104429 | Filter bowl service kit (O-ring)        |
| 104430 | Regulator service kit (relieving)       |
| 104431 | Regulator service kit (non-relieving)   |
| 104432 | Tamper kit                              |
| 104433 | 0 – 30 psi Spring                       |
| 104434 | 0 – 60 psi Spring                       |
| 104435 | 0 – 140 psi Spring                      |
| 104439 | Polycarbonate bowl w/ guard             |
| 104440 | Metal bowl w/ sight glass               |
| 104483 | Metal bowl                              |
| 104441 | Lubricator bowl service kit             |
| 104442 | Sight dome repair kit                   |
| 104310 | 0 – 140 psi Gauge flush mount           |
| 104417 | Panel Nut                               |

\* Replacement auto drains can only be used with auto drain bowls



### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

| Port size | Base model |   |   |   |   |
|-----------|------------|---|---|---|---|
| 3/8"      | F3533      | X | X | X | X |
| 1/2"      | F3534      | X | X | X | X |
| 3/4"      | F3535      | X | X | X | X |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in red below.

#### Thread type

|   |          |
|---|----------|
| 3 | 3/8" NPT |
| 4 | 1/2" NPT |
| 5 | 3/4" NPT |
| C | 3/8" BSP |
| D | 1/2" BSP |
| E | 3/4" BSP |

#### Service indicator

|   |                                     |
|---|-------------------------------------|
| 1 | None                                |
| 2 | Mechanical (standard w/ coalescing) |

#### Filter element

|   |                       |
|---|-----------------------|
| 3 | 0.3-Micron coalescing |
| 4 | 5-Micron              |

#### Bowl option

|   |                        |
|---|------------------------|
| 0 | Polycarbonate w/ guard |
| 1 | Metal w/ sight glass   |
| 2 | Metal                  |

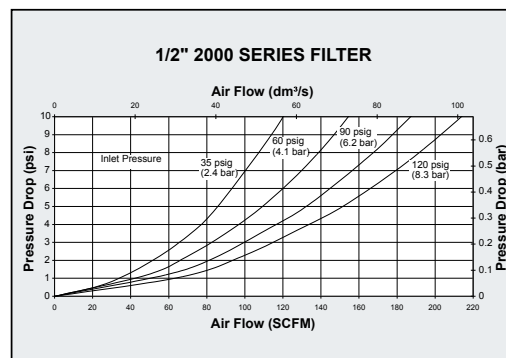
#### Drain option

|   |           |
|---|-----------|
| 0 | Manual    |
| 1 | Automatic |

### Popular configurations

| Port size NPT                                     | Filter type | Element (microns) | Bowl cap (oz) | Service indicator | Model      |
|---|-------------|-------------------|---------------|-------------------|------------|
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD</b> |             |                   |               |                   |            |
| 3/8"  | Standard    | 5                 | 1.9           | None              | F35331-400 |
| 3/8"  | Coalescing  | 0.3               | 1.9           | Mechanical        | F35332-300 |
| 1/2"  | Standard    | 5                 | 1.9           | None              | F35341-400 |
| 1/2"  | Coalescing  | 0.3               | 1.9           | Mechanical        | F35342-300 |
| 3/4"  | Standard    | 5                 | 1.9           | None              | F35351-400 |
| <b>MANUAL DRAIN • METAL BOWL</b>                  |             |                   |               |                   |            |
| 3/8"  | Standard    | 5                 | 2.4           | None              | F35331-420 |
| 3/8"  | Coalescing  | 0.3               | 2.4           | Mechanical        | F35332-320 |
| 1/2"  | Standard    | 5                 | 2.4           | None              | F35341-420 |
| 1/2"  | Coalescing  | 0.3               | 2.4           | Mechanical        | F35342-320 |
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS</b>   |             |                   |               |                   |            |
| 3/8"  | Standard    | 5                 | 2.4           | None              | F35331-410 |
| 3/8"  | Coalescing  | 0.3               | 2.4           | Mechanical        | F35332-310 |
| 1/2"  | Standard    | 5                 | 2.4           | None              | F35341-410 |
| 1/2"  | Coalescing  | 0.3               | 2.4           | Mechanical        | F35342-310 |
| 3/4"  | Standard    | 5                 | 2.4           | None              | F35351-410 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD</b>   |             |                   |               |                   |            |
| 3/8"  | Standard    | 5                 | 2.3           | None              | F35331-401 |
| 3/8"  | Coalescing  | 0.3               | 2.3           | Mechanical        | F35332-301 |
| 1/2"  | Standard    | 5                 | 2.3           | None              | F35341-401 |
| 1/2"  | Coalescing  | 0.3               | 2.3           | Mechanical        | F35342-301 |
| 3/4"  | Standard    | 5                 | 2.3           | None              | F35351-401 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS</b>     |             |                   |               |                   |            |
| 3/8"  | Standard    | 5                 | 2.8           | None              | F35331-411 |
| 3/8"  | Coalescing  | 0.3               | 2.8           | Mechanical        | F35332-311 |
| 1/2"  | Standard    | 5                 | 2.8           | None              | F35341-411 |
| 1/2"  | Coalescing  | 0.3               | 2.8           | Mechanical        | F35342-311 |
| 3/4"  | Standard    | 5                 | 2.8           | None              | F35351-411 |

### 1/2" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104315 | Replacement auto drain*               |
| 104316 | Replacement manual drain              |
| 104317 | 5-Micron element                      |
| 104318 | 40-Micron element                     |
| 104319 | 0.3-Micron element                    |
| 104320 | Poly bowl, manual drain               |
| 104321 | Poly bowl, auto drain                 |
| 104322 | Metal bowl, manual drain              |
| 104323 | Metal bowl, auto drain                |
| 104324 | Metal bowl, sight glass, auto drain   |
| 104325 | Metal bowl, sight glass, manual drain |
| 104326 | Filter bowl service kit               |

\* Replacement auto drains can only be used with auto drain bowls.

### Accessories

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104392-3   | 3/8" NPT lock-out valve    |
| 104392-4   | 1/2" NPT lock-out valve    |
| 104396     | Modular clamp              |
| 104398-3   | 3/8" NPT pipe adapter      |
| 104398-4   | 1/2" NPT pipe adapter      |
| 104479-3   | 3/8" Check valve           |
| 104479-4   | 1/2" Check valve           |
| 104401     | T-type wall mount          |
| 104405     | L-type wall mount          |
| 104409     | C-type wall mount          |
| 104413-3-3 | 3/8" x 3/8" Manifold block |
| 104413-4-3 | 1/2" x 3/8" Manifold block |

2000 Series



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)



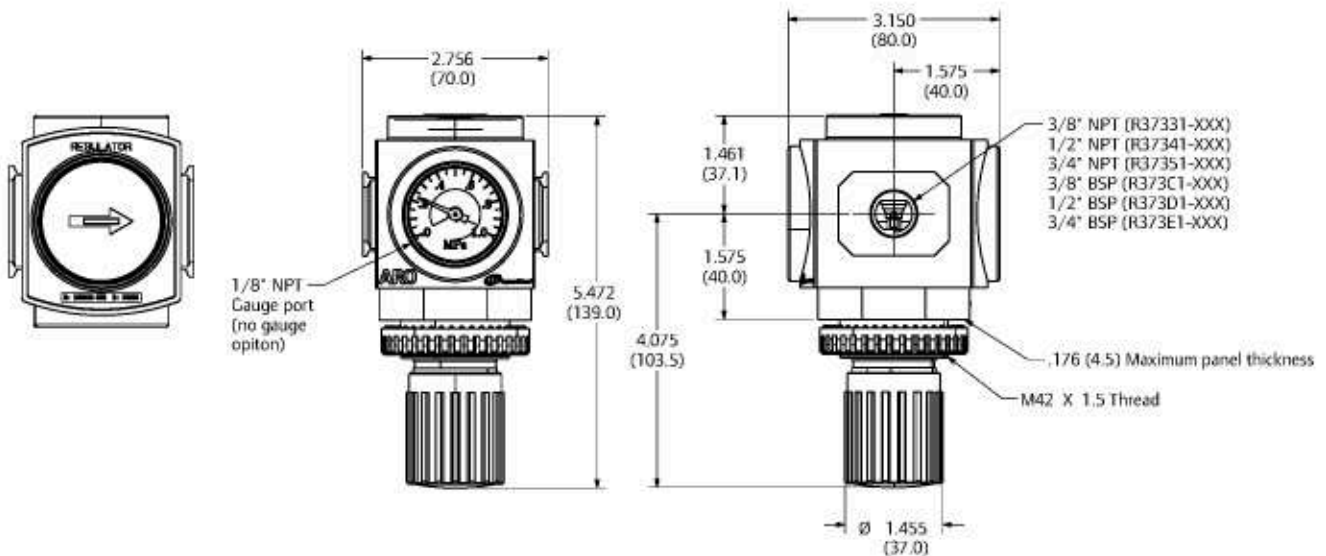
## 2000 Series regulators

3/8", 1/2", and 3/4" Ports

| Technical data             |                       |
|----------------------------|-----------------------|
| Diaphragm                  | Nitrile + nylon       |
| Regulator body             | Aluminum              |
| Regulator valve            | Nitrile + nylon       |
| Regulator springs          | Steel                 |
| Gauge cover                | Nylon + polycarbonate |
| Regulator knob             | Acetal                |
| O-rings                    | Nitrile               |
| Max inlet pressure (psi)   | 250                   |
| Temperature range (F)      | 23 - 140              |
| Spring range options (psi) | 0 - 30                |
|                            | 0 - 60                |
|                            | 0 - 140               |
|                            | 0 - 200               |
| Gauge port                 | 1/8"                  |
| Flow capacity — 3/8" port* | 179 scfm              |
| Flow capacity — 1/2" port* | 210 scfm              |
| Flow capacity — 3/4" port* | 210 scfm              |



\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |         |  |  |
|-----------|------------|---------|--|--|
| Port size | Base model |         |  |  |
| 3/8"      | R373 3 1   | - X X X |  |  |
| 1/2"      | R373 4 1   | - X X X |  |  |
| 3/4"      | R373 5 1   | - X X X |  |  |

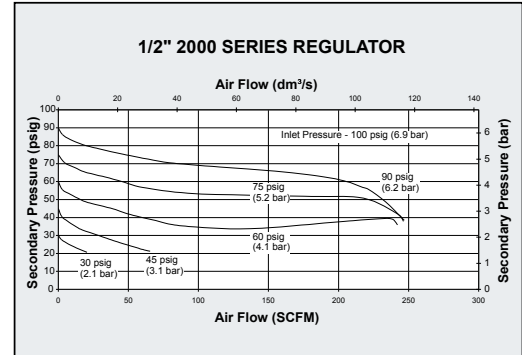
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|                    |  |                                       |                         |                        |
|--------------------|--|---------------------------------------|-------------------------|------------------------|
| <b>Thread type</b> |  | <b>Pressure range PSIG</b>            | <b>Relieving option</b> | <b>Control option</b>  |
| <b>3</b> 3/8" NPT  |  | <b>1</b> 0 – 140 (no gauge)           | <b>0</b> Relieving      | <b>0</b> Standard knob |
| <b>4</b> 1/2" NPT  |  | <b>2</b> 0 – 60 (no gauge)            | <b>2</b> Non-relieving  |                        |
| <b>5</b> 3/4" NPT  |  | <b>3</b> 10 – 200 (no gauge)          |                         |                        |
| <b>C</b> 3/8" BSP  |  | <b>4</b> 0 – 30 (no gauge)            |                         |                        |
| <b>D</b> 1/2" BSP  |  | <b>6</b> 0 – 140 w/ flush-mount gauge |                         |                        |
| <b>E</b> 3/4" BSP  |  |                                       |                         |                        |

### Popular configurations

| Port size NPT                                | Pressure range psi | Gauge             | Model      |
|--|--------------------|-------------------|------------|
| <b>RELIEVING • STANDARD KNOB CONTROL</b>     |                    |                   |            |
| 3/8"   | 0 – 30             | No gauge          | R37331-400 |
| 3/8"   | 0 – 60             | No gauge          | R37331-200 |
| 3/8"   | 0 – 140            | No gauge          | R37331-100 |
| 3/8"   | 0 – 140            | Flush-mount gauge | R37331-600 |
| 3/8"   | 10 – 200           | No gauge          | R37331-300 |
| 1/2"   | 0 – 30             | No gauge          | R37341-400 |
| 1/2"   | 0 – 60             | No gauge          | R37341-200 |
| 1/2"   | 0 – 140            | No gauge          | R37341-100 |
| 1/2"   | 0 – 140            | Flush-mount gauge | R37341-600 |
| 1/2"   | 10 – 200           | No gauge          | R37341-300 |
| 3/4"   | 0 – 30             | No gauge          | R37351-400 |
| 3/4"   | 0 – 60             | No gauge          | R37351-200 |
| 3/4"   | 0 – 140            | No gauge          | R37351-100 |
| 3/4"   | 0 – 140            | Flush-mount gauge | R37351-600 |
| 3/4"   | 10 – 200           | No gauge          | R37351-300 |
| <b>NON-RELIEVING • STANDARD KNOB CONTROL</b> |                    |                   |            |
| 3/8"   | 0 – 30             | No gauge          | R37331-420 |
| 3/8"   | 0 – 60             | No gauge          | R37331-220 |
| 3/8"   | 0 – 140            | No gauge          | R37331-120 |
| 3/8"   | 0 – 140            | Flush-mount gauge | R37331-620 |
| 3/8"   | 10 – 200           | No gauge          | R37331-320 |
| 1/2"   | 0 – 30             | No gauge          | R37341-420 |
| 1/2"   | 0 – 60             | No gauge          | R37341-220 |
| 1/2"   | 0 – 140            | No gauge          | R37341-120 |
| 1/2"   | 0 – 140            | Flush-mount gauge | R37341-620 |
| 1/2"   | 10 – 200           | No gauge          | R37341-320 |
| 3/4"   | 0 – 140            | Flush-mount gauge | R37351-620 |
| 3/4"   | 10 – 200           | No gauge          | R37351-320 |

### 1/2" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104327 | Regulator service kit (relieving)     |
| 104328 | Regulator service kit (non-relieving) |
| 104329 | Tamper kit                            |
| 104330 | 0 – 60 psi Spring                     |
| 104331 | 0 – 140 psi Spring                    |
| 104332 | 10 – 200 psi Spring                   |
| 104334 | 0 – 140 psi Gauge flush mount         |

### Accessories

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104392-3   | 3/8" NPT lock-out valve    |
| 104392-4   | 1/2" NPT lock-out valve    |
| 104396     | Modular clamp              |
| 104398-3   | 3/8" NPT pipe adapter      |
| 104398-4   | 1/2" NPT pipe adapter      |
| 104479-3   | 3/8" Check valve           |
| 104479-4   | 1/2" Check valve           |
| 104401     | T-type wall mount          |
| 104405     | L-type wall mount          |
| 104409     | C-type wall mount          |
| 104413-3-3 | 3/8" x 3/8" Manifold block |
| 104413-4-3 | 1/2" x 3/8" Manifold block |
| 104418     | Panel nut                  |
| 104469     | Gauge port block           |
| 104415     | Pressure switch            |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.



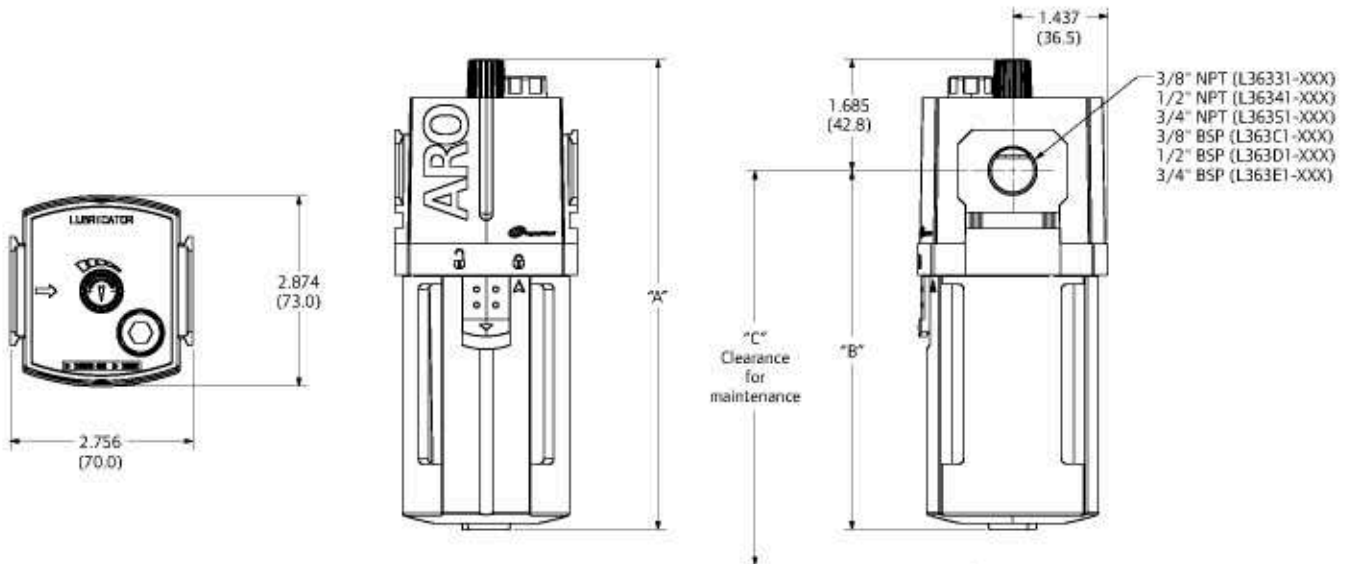
Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)

## 2000 Series Lubricators

3/8", 1/2", and 3/4" Ports

| Technical data             |                    |                              |
|----------------------------|--------------------|------------------------------|
| Lubricator body            | Aluminum           |                              |
| Lubricator sight dome      | Nylon              |                              |
| Lubricator inlet tube      | Urethane           |                              |
| Seals                      | Nitrile            |                              |
|                            | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)   | 150                | 250                          |
| Temperature range (F)      | 23 – 125           | 23 – 175                     |
| Bowl capacity (oz)         | 4.3                | 3.7                          |
| Flow capacity — 3/8" port* | 85 scfm            |                              |
| Flow capacity — 1/2" port* | 156 scfm           |                              |
| Flow capacity — 3/4" port* | 222 scfm           |                              |

\*Inlet pressure 90 psi (6.2 bar) with 7 psi drop (0.5 bar)



| MODEL      | A (MM)        | B (MM)        | C (MM)        | BOWL OPTION          |
|------------|---------------|---------------|---------------|----------------------|
| L363X1-X0X | 7.087 (180.0) | 5.402 (137.2) | 9.402 (238.8) | POLYCARBONATE        |
| L363X1-X1X | 7.165 (182.0) | 5.480 (139.2) | 8.980 (228.1) | METAL W/ SIGHT GLASS |
| L363X1-X2X | 7.165 (182.0) | 5.480 (139.2) | 8.980 (228.1) | METAL                |



**How to order**

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |
|-----------|------------|---|---|---|---|
| Port size | Base model |   |   |   |   |
| 3/8"      | L363 3     | 1 | X | X | X |
| 1/2"      | L363 4     | 1 | X | X | X |
| 3/4"      | L363 5     | 1 | X | X | X |

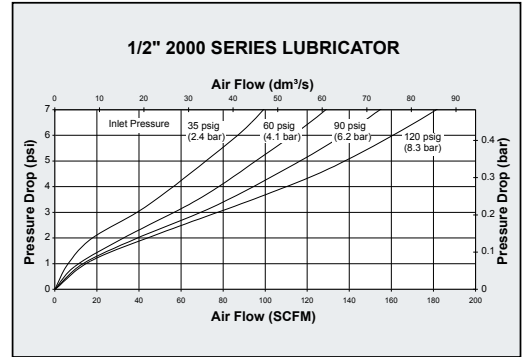
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in red below.

|                    |                          |                               |                    |
|--------------------|--------------------------|-------------------------------|--------------------|
| <b>Thread type</b> | <b>Adjustment option</b> | <b>Bowl option</b>            | <b>Fill option</b> |
| <b>3</b> 3/8" NPT  | <b>1</b> Standard        | <b>0</b> Polycarbonate        | <b>0</b> Standard  |
| <b>4</b> 1/2" NPT  |                          | <b>1</b> Metal w/ sight glass |                    |
| <b>5</b> 3/4" NPT  |                          | <b>2</b> Metal                |                    |
| <b>C</b> 3/8" BSP  |                          |                               |                    |
| <b>D</b> 1/2" BSP  |                          |                               |                    |
| <b>E</b> 3/4" BSP  |                          |                               |                    |

**Popular configurations**

| Port size NPT                      | Adjustment option | Bowl cap (oz) | Fill option | Model      |
|------------------------------------|-------------------|---------------|-------------|------------|
| <b>METAL BOWL</b>                  |                   |               |             |            |
| 3/8"                               | Standard          | 3.7           | Standard    | L36331-120 |
| 1/2"                               | Standard          | 3.7           | Standard    | L36341-120 |
| 3/4"                               | Standard          | 3.7           | Standard    | L36351-120 |
| <b>METAL BOWL W/ SIGHT GLASS</b>   |                   |               |             |            |
| 3/8"                               | Standard          | 3.7           | Standard    | L36331-110 |
| 1/2"                               | Standard          | 3.7           | Standard    | L36341-110 |
| 3/4"                               | Standard          | 3.7           | Standard    | L36351-110 |
| <b>POLYCARBONATE BOWL W/ GUARD</b> |                   |               |             |            |
| 3/8"                               | Standard          | 4.3           | Standard    | L36331-100 |
| 1/2"                               | Standard          | 4.3           | Standard    | L36341-100 |
| 3/4"                               | Standard          | 4.3           | Standard    | L36351-100 |

**1/2" Pressure drop test**



See page 77 for additional flow charts

**Replacement parts**

| MODEL  | DESCRIPTION                 |
|--------|-----------------------------|
| 104336 | Polycarbonate bowl w/ guard |
| 104337 | Metal bowl                  |
| 104338 | Metal bowl w/ sight glass   |
| 104339 | Lubricator bowl service kit |
| 104470 | Sight dome repair kit       |

**Accessories**

See page 65 for details

| MODEL      | DESCRIPTION                |
|------------|----------------------------|
| 104392-3   | 3/8" NPT lockout valve     |
| 104392-4   | 1/2" NPT lockout valve     |
| 104396     | Modular clamp              |
| 104398-3   | 3/8" NPT pipe adapter      |
| 104398-4   | 1/2" NPT pipe adapter      |
| 104479-3   | 3/8" Check valve           |
| 104479-4   | 1/2" Check valve           |
| 104401     | T-type wall mount          |
| 104405     | L-type wall mount          |
| 104409     | C-type wall mount          |
| 104413-3-3 | 3/8" x 3/8" Manifold block |
| 104413-4-3 | 1/2" x 3/8" Manifold block |

2000 Series



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)

## 2000 Series piggyback filters / regulators

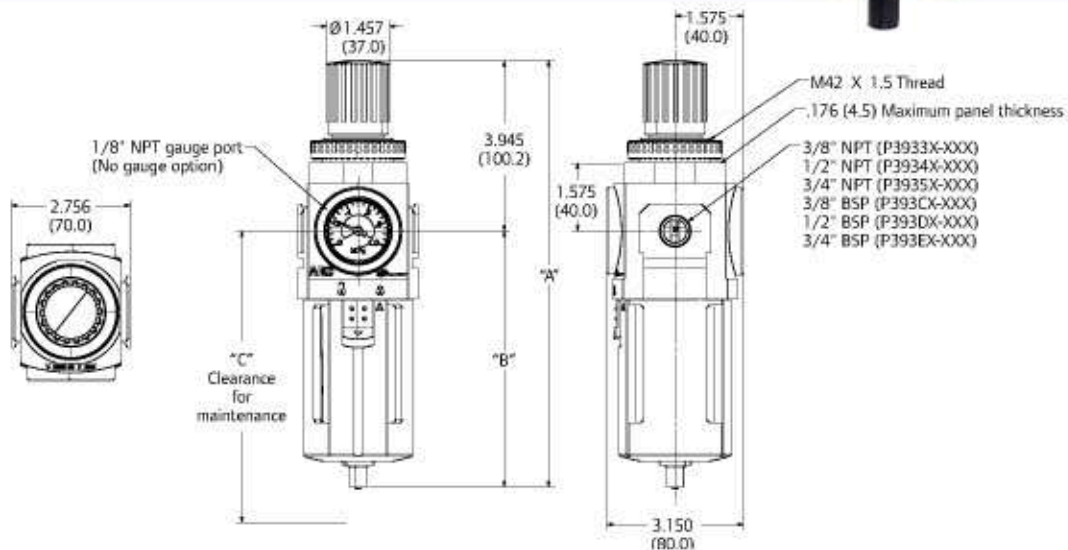
3/8", 1/2", and 3/4" Ports

| Technical data               |                    |                              |
|------------------------------|--------------------|------------------------------|
|                              | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)     | 150                | 250                          |
| Temperature range (F)        | 23 - 125           | 23 - 175                     |
| Spring range options (psi)   | 0 - 30             |                              |
|                              | 0 - 60             |                              |
|                              | 0 - 140            |                              |
|                              | 0 - 200            |                              |
| Bowl cap — manual drain (oz) | 1.9                | 2.4                          |
| Bowl cap — auto drain (oz)   | 2.3                | 2.8                          |
| Gauge port                   | 1/8"               |                              |
| Flow capacity — 3/8" port*   | 132 scfm           |                              |
| Flow capacity — 1/2" port*   | 172 scfm           |                              |
| Flow capacity — 3/4" port*   | 173 scfm           |                              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Panel nut comes standard on all individual piggyback units



| MODEL      | A (MM)         | B (MM)        | C (MM)        | BOWL OPTION          | DRAIN OPTION |
|------------|----------------|---------------|---------------|----------------------|--------------|
| P393XX-X00 | 9.961 (253.0)  | 6.016 (152.8) | 9.016 (229.0) | POLY W/ GUARD        | MANUAL       |
| P393XX-X10 | 10.039 (225.0) | 6.094 (154.8) | 8.594 (218.3) | METAL W/ SIGHT GLASS | MANUAL       |
| P393XX-X20 | 10.039 (225.0) | 6.094 (154.8) | 8.594 (218.3) | METAL                | MANUAL       |
| P393XX-X04 | 10.787 (274.0) | 6.843 (173.8) | 9.843 (250.0) | POLY W/GUARD         | AUTOMATIC    |
| P393XX-X14 | 10.866 (276.0) | 6.921 (175.8) | 9.421 (239.3) | METAL W/ SIGHT GLASS | AUTOMATIC    |
| P393XX-X24 | 10.866 (276.0) | 6.921 (175.8) | 9.421 (239.3) | METAL                | AUTOMATIC    |

**How to order**

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

| Port size | Base model |   |   |   |   |
|-----------|------------|---|---|---|---|
| 3/8"      | P3933      | X | X | X | X |
| 1/2"      | P3934      | X | X | X | X |
| 3/4"      | P3935      | X | X | X | X |

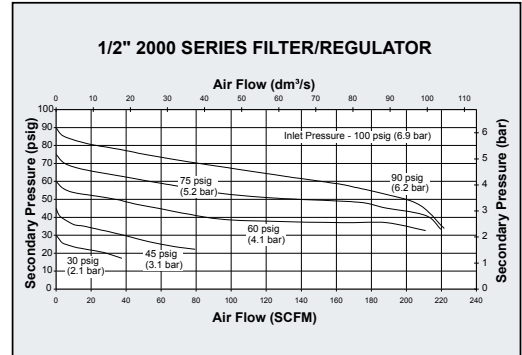
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in red below.

| Filter element                 | Pressure range PSIG                   | Relieving bowl option                     | Control / drain option             |
|--------------------------------|---------------------------------------|---|------------------------------------|
| <b>3</b> 0.3-Micron coalescing | <b>1</b> 0 – 140 (no gauge)           | <b>0</b> Relieving / poly w/ guard        | <b>0</b> Standard knob / manual    |
| <b>4</b> 5-Micron              | <b>2</b> 0 – 60 (no gauge)            | <b>1</b> Relieving / metal w/ sight glass | <b>4</b> Standard knob / automatic |
| <b>Thread type</b>             | <b>3</b> 10 – 175 (no gauge)          | <b>2</b> Relieving / metal                |                                    |
| <b>3</b> 3/8" NPT              | <b>4</b> 0 – 30 (no gauge)            |   |                                    |
| <b>4</b> 1/2" NPT              | <b>6</b> 0 – 140 w/ flush-mount gauge |   |                                    |
| <b>5</b> 3/4" NPT              |                                       |   |                                    |
| <b>C</b> 3/8" BSP              |                                       |   |                                    |
| <b>D</b> 1/2" BSP              |                                       |   |                                    |
| <b>E</b> 3/4" BSP              |                                       |   |                                    |

**Popular configurations**

| Port size NPT   | Drain  | Spring range psi | w/ Gauge | Model      |
|---|--------|------------------|----------|------------|
| <b>5 MICRON • POLYCARBONATE BOWL • RELIEVING</b>        |        |                  |          |            |
| 3/8"  | Manual | 0 – 140          | No       | P39334-100 |
| 3/8"  | Manual | 0 – 140          | Yes      | P39334-600 |
| 3/8"  | Auto   | 0 – 140          | No       | P39334-104 |
| 3/8"  | Auto   | 0 – 140          | Yes      | P39334-604 |
| 1/2"  | Manual | 0 – 140          | No       | P39344-100 |
| 1/2"  | Manual | 0 – 140          | Yes      | P39344-600 |
| 1/2"  | Auto   | 0 – 140          | No       | P39334-104 |
| 1/2"  | Auto   | 0 – 140          | Yes      | P39334-604 |
| 3/4"  | Manual | 0 – 140          | No       | P39354-100 |
| 3/4"  | Manual | 0 – 140          | Yes      | P39354-600 |
| <b>5 MICRON • METAL BOWL W/ SIGHT GLASS • RELIEVING</b> |        |                  |          |            |
| 3/8"  | Manual | 0 – 140          | No       | P39334-110 |
| 3/8"  | Manual | 0 – 140          | Yes      | P39334-610 |
| 3/8"  | Auto   | 0 – 140          | No       | P39334-114 |
| 3/8"  | Auto   | 0 – 140          | Yes      | P39334-614 |
| 1/2"  | Manual | 0 – 140          | No       | P39344-110 |
| 1/2"  | Manual | 0 – 140          | Yes      | P39344-610 |
| 1/2"  | Auto   | 0 – 140          | No       | P39344-114 |
| 1/2"  | Auto   | 0 – 140          | Yes      | P39344-614 |
| 3/4"  | Manual | 0 – 140          | No       | P39354-110 |
| 3/4"  | Manual | 0 – 140          | Yes      | P39354-610 |

**1/2" Pressure drop test**



See page 77 for additional flow charts

2000 Series

**Replacement parts**

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104315 | Replacement auto drain*               |
| 104316 | Replacement manual drain              |
| 104317 | 5-Micron element                      |
| 104318 | 40-Micron element                     |
| 104363 | 0.3-Micron element                    |
| 104320 | Poly bowl, manual drain               |
| 104321 | Poly bowl, auto drain                 |
| 104322 | Metal bowl, manual drain              |
| 104323 | Metal bowl, auto drain                |
| 104324 | Metal bowl, sight glass, auto         |
| 104325 | Metal bowl, sight glass, man.         |
| 104326 | Filter bowl service kit               |
| 104327 | Regulator service kit (relieving)     |
| 104328 | Regulator service kit (non-relieving) |
| 104329 | Tamper kit                            |
| 104330 | 0 – 60 psi Spring                     |
| 104331 | 0 – 140 psi Spring                    |
| 104332 | 10 – 200 psi Spring                   |
| 104334 | 0 – 140 psi Gauge flush mount         |
| 104418 | Panel Nut                             |

\* Replacement auto drains can only be used with auto drain bowls.

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)



## 2000 Series combinations

3/8", 1/2", and 3/4" Ports

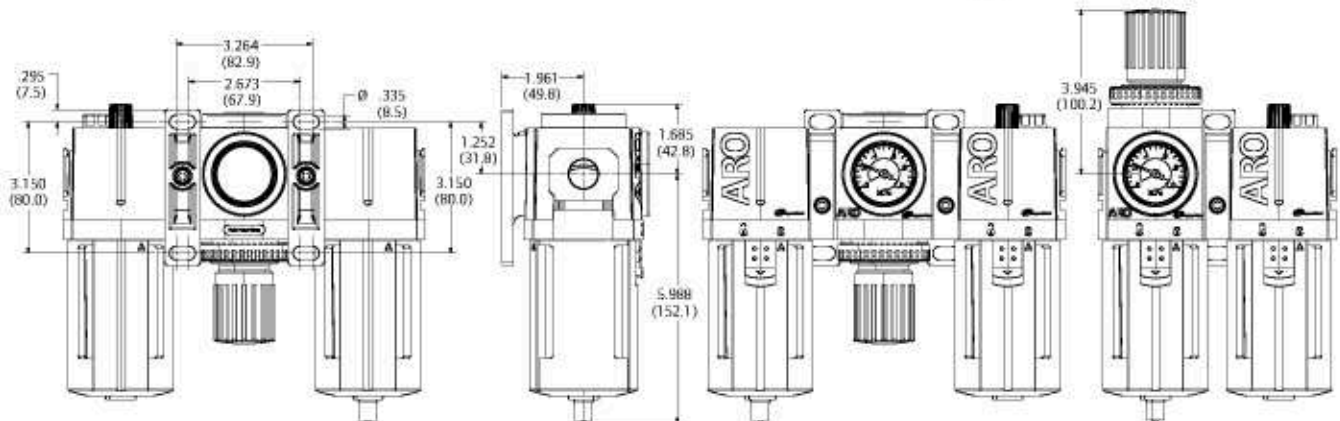
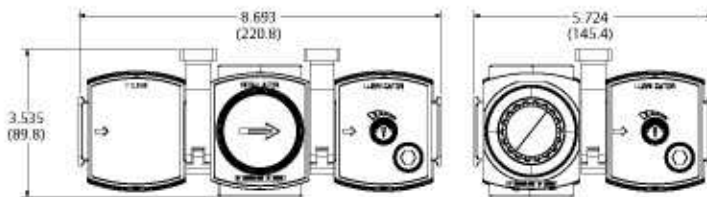
### Technical data

|                                     | POLYCARBONATE BOWL | METAL / METAL W/ SIGHT GLASS |
|-------------------------------------|--------------------|------------------------------|
| Max inlet pressure (psi)            | 150                | 250                          |
| Temperature range (F)               | 23 - 125           | 23 - 175                     |
| Spring range options (psi)          | 0 - 140            |                              |
| Filter element                      | 5 micron           |                              |
| Filter bowl cap — manual drain (oz) | 1.9                | 2.4                          |
| Filter bowl cap — auto drain (oz)   | 2.3                | 2.8                          |
| Lubricator bowl capacity (oz)       | 4.3                | 3.7                          |
| Gauge port                          | 1/8"               |                              |
| Flow capacity — 3/8" - 2 unit*      | 96 scfm            |                              |
| Flow capacity — 1/2" - 2 unit*      | 120 scfm           |                              |
| Flow capacity — 3/4" - 2 unit*      | 142 scfm           |                              |
| Flow capacity — 3/8" - 3 unit*      | 99 scfm            |                              |
| Flow capacity — 1/2" - 3 unit*      | 150 scfm           |                              |
| Flow capacity — 3/4" - 3 unit*      | 171 scfm           |                              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Photos shown with optional panel nut. If required, order 104418 panel nut separately.



## F + R + L Combinations

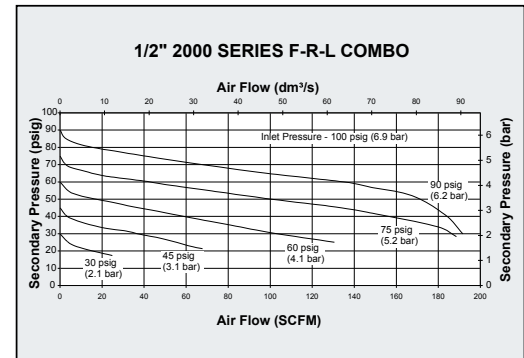
| Port size<br>NPT   | Filter     | Components<br>Regulator | Lubricator | Model      |
|--|------------|-------------------------|------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 3/8"   | F35331-410 | R37331-600              | L36331-110 | C38331-810 |
| 1/2"   | F35341-410 | R37341-600              | L36341-110 | C38341-810 |
| 3/4"   | F35351-410 | R37351-600              | L36351-110 | C38351-810 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b> |            |                         |            |            |
| 3/8"   | F35331-400 | R37331-600              | L36331-100 | C38331-800 |
| 1/2"   | F35341-400 | R37341-600              | L36341-100 | C38341-800 |
| 3/4"   | F35351-400 | R37351-600              | L36351-100 | C38351-800 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>     |            |                         |            |            |
| 3/8"   | F35331-411 | R37331-600              | L36331-110 | C38331-811 |
| 1/2"   | F35341-411 | R37341-600              | L36341-110 | C38341-811 |
| 3/4"   | F35351-411 | R37351-600              | L36351-110 | C38351-811 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 3/8"   | F35331-401 | R37331-600              | L36331-100 | C38331-801 |
| 1/2"   | F35341-401 | R37341-600              | L36341-100 | C38341-801 |
| 3/4"   | F35351-401 | R37351-600              | L36351-100 | C38351-801 |

## F/R + L Combinations

| Port size<br>NPT   | Filter-regulator | Components<br>Lubricator | Model      |
|--|------------------|--------------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 3/8"   | P39334-610       | L36331-110               | C38331-610 |
| 1/2"   | P39344-610       | L36341-110               | C38341-610 |
| 3/4"   | P39354-610       | L36351-110               | C38351-610 |
| <b>MANUAL DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b> |                  |                          |            |
| 3/8"   | P39334-600       | L36331-100               | C38331-600 |
| 1/2"   | P39344-600       | L36341-100               | C38341-600 |
| 3/4"   | P39354-600       | L36351-100               | C38351-600 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>     |                  |                          |            |
| 3/8"   | P39334-614       | L36331-110               | C38331-611 |
| 1/2"   | P39344-614       | L36341-110               | C38341-611 |
| 3/4"   | P39354-614       | L36351-110               | C38351-611 |
| <b>AUTO DRAIN • POLYCARBONATE BOWL W/ GUARD • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 3/8"   | P39334-604       | L36331-100               | C38331-601 |
| 1/2"   | P39344-604       | L36341-100               | C38341-601 |
| 3/4"   | P39354-604       | L36351-100               | C38351-601 |

**Note:** Other combinations may be assembled by purchasing the individual components separately. Modular connector kits are required to connect the individual units together.

## 1/2" Pressure drop test



See page 77 for additional flow charts

## Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104315 | Replacement auto drain*               |
| 104316 | Replacement manual drain              |
| 104317 | 5-Micron element                      |
| 104318 | 40-Micron element                     |
| 104319 | 0.3-Micron filter element             |
| 104363 | 0.3-Micron piggyback element          |
| 104320 | Poly bowl, manual drain               |
| 104321 | Poly bowl, auto drain                 |
| 104322 | Metal bowl, manual drain              |
| 104323 | Metal bowl, auto drain                |
| 104324 | Metal bowl, sight glass, auto         |
| 104325 | Metal bowl, sight glass, man.         |
| 104326 | Filter bowl service kit               |
| 104327 | Regulator service kit (relieving)     |
| 104328 | Regulator service kit (non-relieving) |
| 104329 | Tamper kit                            |
| 104330 | 0 – 60 psi Spring                     |
| 104331 | 0 – 140 psi Spring                    |
| 104332 | 10 – 200 psi Spring                   |
| 104334 | 0 – 140 psi Gauge flush mount         |
| 104336 | Polycarbonate bowl w/ guard           |
| 104337 | Metal bowl                            |
| 104338 | Metal bowl w/ sight glass             |
| 104339 | Lubricator bowl service kit           |
| 104470 | Sight dome repair kit                 |
| 104418 | Panel Nut                             |

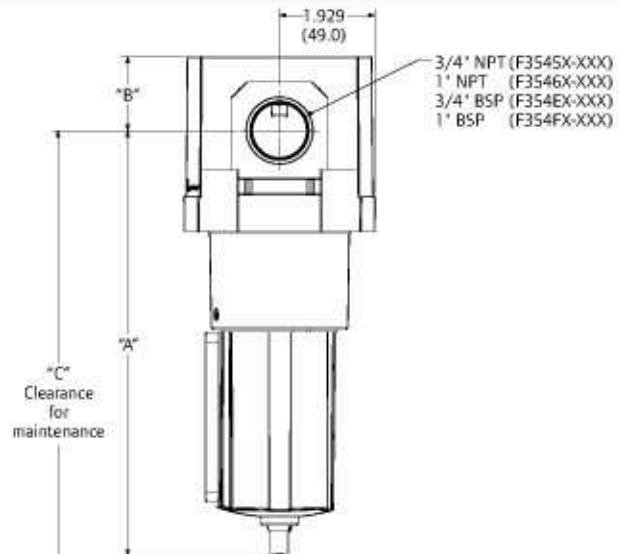
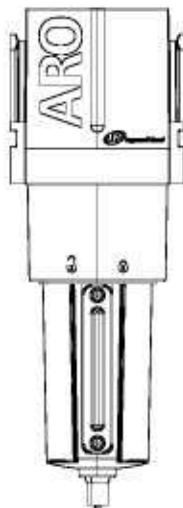
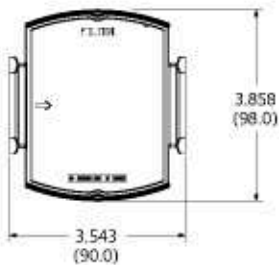
\* Replacement auto drains can only be used with auto drain bowls.

## 3000 Series filters

3/4" and 1" Ports

| Technical data               |                                 |
|------------------------------|---------------------------------|
| Metal bowl                   | Aluminum                        |
| Metal bowl sight glass       | Nylon                           |
| Filter body                  | Aluminum                        |
| Manual drain                 | Brass + nitrile                 |
| Auto drain                   | Acetal                          |
| Standard filter              | Polyethylene                    |
| Coalescing filter            | HEPA paper + felt               |
| Seals                        | Nitrile                         |
| Filter baffle                | Acetal                          |
|                              | METAL /<br>METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)     | 250                             |
| Temperature range (F)        | 23 – 175                        |
| Bowl cap — manual drain (oz) | 5.3                             |
| Bowl cap — auto drain (oz)   | 5.9                             |
| Bowl cap — coal manual drain | 4.7                             |
| Bowl cap — coal auto drain   | 5.2                             |
| Flow capacity — 3/4" port*   | 288 scfm                        |
| Flow capacity — 1" port*     | 353 scfm                        |

\*Inlet pressure 90 psi (6.2 bar) with 10 psi drop (0.7 bar)



| MODEL      | A (MM)        | C (MM)         | DRAIN     |
|------------|---------------|----------------|-----------|
| F354XX-XX0 | 8.429 (214.1) | 10.929 (277.6) | MANUAL    |
| F354XX-XX1 | 9.315 (236.6) | 11.815 (300.1) | AUTOMATIC |

| MODEL      | B (MM)       | SERVICE INDICATOR |
|------------|--------------|-------------------|
| F354X1-XXX | 1.496 (38.0) | NONE              |
| F354X2-XXX | 2.165 (55.0) | MECHANICAL        |



**How to order**

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |
|-----------|------------|---|---|---|---|
| Port size | Base model |   |   |   |   |
| 3/4"      | - F354 5   | X | X | X | X |
| 1"        | - F354 6   | X | X | X | X |

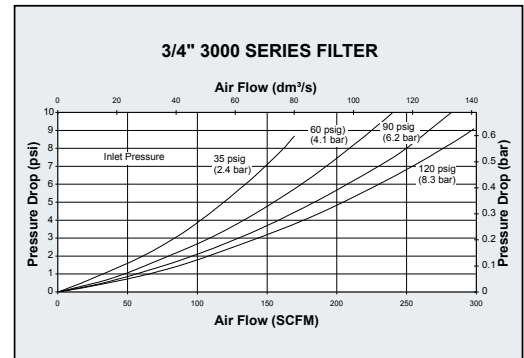
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|                    |                          |                         |                        |                     |
|--------------------|--------------------------|-------------------------|------------------------|---------------------|
| <b>Thread type</b> | <b>Service indicator</b> | <b>Filter element</b>   | <b>Bowl option</b>     | <b>Drain option</b> |
| 5 3/4" NPT         | 1 None                   | 3 0.3-Micron coalescing | 1 Metal w/ sight glass | 0 Manual            |
| 6 1" NPT           | 2 Mechanical (standard)  | 4 5-Micron              | 2 Metal                | 1 Automatic         |
| E 3/4" BSP         |                          |                         |                        |                     |
| F 1" BSP           | w/ coalescing            |                         |                        |                     |

**Popular configurations**

| Port size NPT                                   | Filter type | Element (microns) | Bowl cap (oz) | Service indicator | Model      |
|---|-------------|-------------------|---------------|-------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL</b>                |             |                   |               |                   |            |
| 3/4"  | Coalescing  | 0.3               | 4.7           | Mechanical        | F35452-320 |
| 3/4"  | Standard    | 5                 | 5.3           | None              | F35451-420 |
| 3/4"  | Standard    | 5                 | 5.3           | Mechanical        | F35452-420 |
| 1"  | Coalescing  | 0.3               | 4.7           | Mechanical        | F35462-320 |
| 1"  | Standard    | 5                 | 5.3           | None              | F35461-420 |
| 1"  | Standard    | 5                 | 5.3           | Mechanical        | F35462-420 |
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS</b> |             |                   |               |                   |            |
| 3/4"  | Coalescing  | 0.3               | 4.7           | Mechanical        | F35452-310 |
| 3/4"  | Standard    | 5                 | 5.3           | None              | F35451-410 |
| 3/4"  | Standard    | 5                 | 5.3           | Mechanical        | F35452-410 |
| 1"  | Coalescing  | 0.3               | 4.7           | Mechanical        | F35462-310 |
| 1"  | Standard    | 5                 | 5.3           | None              | F35461-410 |
| 1"  | Standard    | 5                 | 5.3           | Mechanical        | F35462-410 |
| <b>AUTO DRAIN • METAL BOWL</b>                  |             |                   |               |                   |            |
| 3/4"  | Coalescing  | 0.3               | 5.2           | Mechanical        | F35452-321 |
| 3/4"  | Standard    | 5                 | 5.9           | None              | F35451-421 |
| 3/4"  | Standard    | 5                 | 5.9           | Mechanical        | F35452-421 |
| 1"  | Coalescing  | 0.3               | 5.2           | Mechanical        | F35462-321 |
| 1"  | Standard    | 5                 | 5.9           | None              | F35461-421 |
| 1"  | Standard    | 5                 | 5.9           | Mechanical        | F35462-421 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS</b>   |             |                   |               |                   |            |
| 3/4"  | Coalescing  | 0.3               | 5.2           | Mechanical        | F35452-311 |
| 3/4"  | Standard    | 5                 | 5.9           | None              | F35451-411 |
| 3/4"  | Standard    | 5                 | 5.9           | Mechanical        | F35452-411 |
| 1"  | Coalescing  | 0.3               | 5.2           | Mechanical        | F35462-311 |
| 1"  | Standard    | 5                 | 5.9           | None              | F35461-411 |
| 1"  | Standard    | 5                 | 5.9           | Mechanical        | F35462-411 |

**3/4" Pressure drop test**



See page 77 for additional flow charts

**Replacement parts**

| MODEL  | DESCRIPTION                          |
|--------|--------------------------------------|
| 104445 | 5-Micron element                     |
| 104446 | 40-Micron element                    |
| 104447 | 0.3-Micron element                   |
| 104450 | Metal bowl w/ sight glass, man       |
| 104451 | Metal bowl w/ sight glass, auto      |
| 104452 | Filter bowl service kit              |
| 104461 | Coalescing filter bowl, manual drain |
| 104462 | Coalescing filter bowl, auto drain   |
| 104315 | Replacement auto drain*              |
| 104316 | Replacement manual drain             |
| 104322 | Metal bowl, manual drain             |
| 104323 | Metal bowl, auto drain               |

\* Replacement auto drains can only be used with auto drain bowls.

**Accessories**

See page 65 for details

| MODEL    | DESCRIPTION            |
|----------|------------------------|
| 104393-5 | 3/4" NPT lockout valve |
| 104393-6 | 1" NPT lockout valve   |
| 104397   | Modular clamp          |
| 104476-5 | 3/4" NPT pipe adapter  |
| 104476-6 | 1" NPT pipe adapter    |
| 104402   | T-type wall mount      |
| 104406   | L-type wall mount      |
| 104410   | C-type wall mount      |

3000 Series



Web site: [ingersollrandproducts.com](http://ingersollrandproducts.com)

## 3000 Series regulators

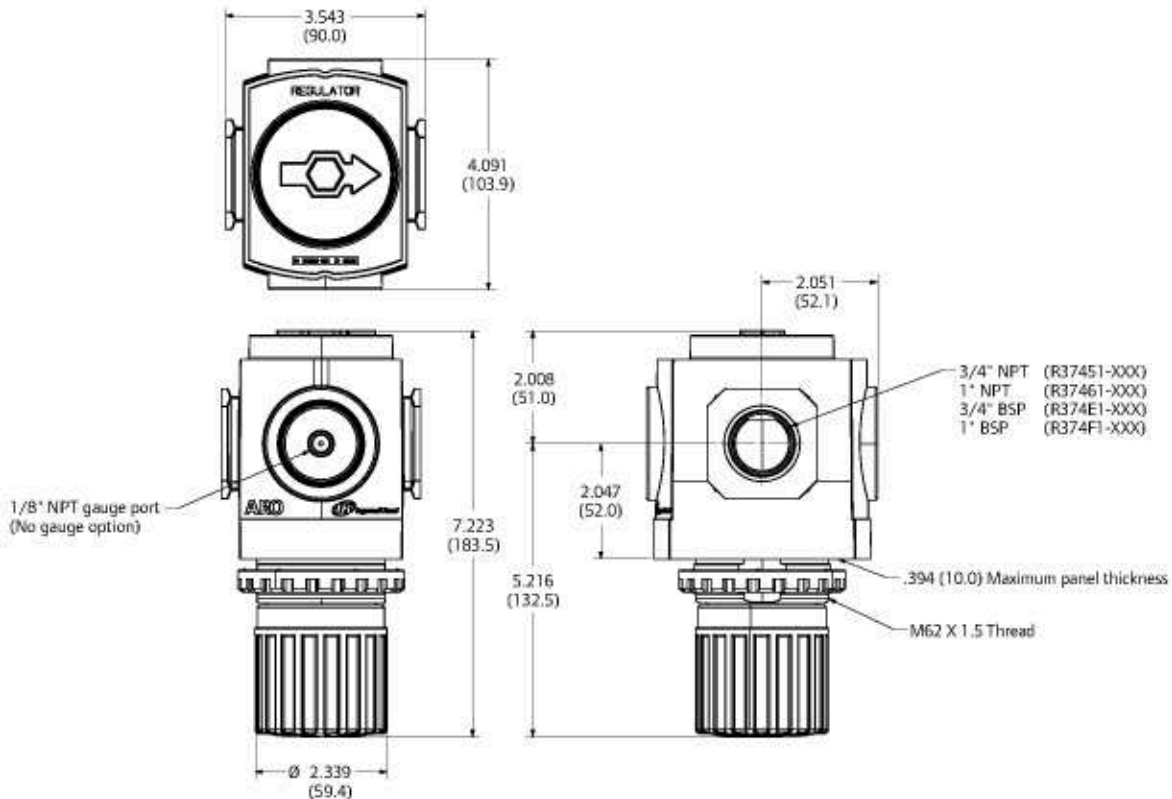
3/4" and 1" Ports

| Technical data             |                       |
|----------------------------|-----------------------|
| Diaphragm                  | Nitrile + nylon       |
| Regulator body             | Aluminum              |
| Regulator valve            | Nitrile + nylon       |
| Regulator springs          | Steel                 |
| Gauge cover                | Nylon + polycarbonate |
| Regulator knob             | Acetal                |
| O-rings                    | Nitrile               |
| Max inlet pressure (psi)   | 250                   |
| Temperature range (F)      | 23 – 140              |
| Spring range options (psi) | 0 – 30                |
|                            | 0 – 60                |
|                            | 0 – 140               |
|                            | 10 – 200              |
| Gauge port                 | 1/8"                  |
| Flow capacity — 3/4" port* | 290 scfm              |
| Flow capacity — 1" port*   | 290 scfm              |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Panel nut comes standard on all individual regulator units



### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |         |  |  |
|-----------|------------|---------|--|--|
| Port size | Base model |         |  |  |
| 3/4"      | R374 5 1   | - X X X |  |  |
| 1"        | R374 6 1   | - X X X |  |  |

**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in red below.

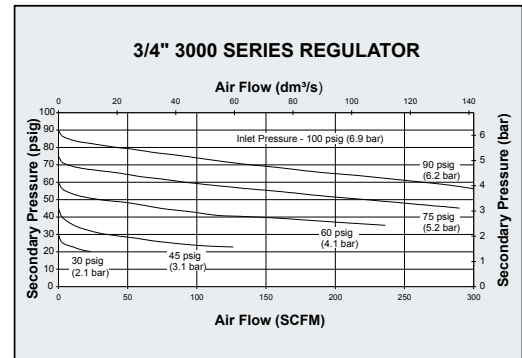
|                    |                                |                         |                       |
|--------------------|--------------------------------|-------------------------|-----------------------|
| <b>Thread type</b> | <b>Pressure range PSIG</b>     | <b>Relieving option</b> | <b>Control option</b> |
| 5 3/4" NPT         | 1 0 – 140 (no gauge)           | 0 Relieving             | 0 Standard knob       |
| 6 1" NPT           | 2 0 – 60 (no gauge)            | 2 Non-relieving         |                       |
| E 3/4" BSP         | 3 10 – 200 (no gauge)          |                         |                       |
| F 1" BSP           | 4 0 – 30 (no gauge)            |                         |                       |
|                    | 6 0 – 140 w/ flush-mount gauge |                         |                       |

### Popular configurations

| Port size<br>NPT                             | Pressure range<br>psi | Gauge             | Model      |
|--|-----------------------|-------------------|------------|
| <b>RELIEVING • STANDARD KNOB CONTROL</b>     |                       |                   |            |
| 3/4"   | 0 – 30                | No gauge          | R37451-400 |
| 3/4"   | 0 – 60                | No gauge          | R37451-200 |
| 3/4"   | 0 – 140               | No gauge          | R37451-100 |
| 3/4"   | 0 – 140               | Flush-mount gauge | R37451-600 |
| 3/4"   | 10 – 200              | No gauge          | R37451-300 |
| 1"   | 0 – 30                | No gauge          | R37461-400 |
| 1"   | 0 – 60                | No gauge          | R37461-200 |
| 1"   | 0 – 140               | No gauge          | R37461-100 |
| 1"   | 0 – 140               | Flush-mount gauge | R37461-600 |
| 1"   | 10 – 200              | No gauge          | R37461-300 |
| <b>NON-RELIEVING • STANDARD KNOB CONTROL</b> |                       |                   |            |
| 3/4"   | 0 – 30                | No gauge          | R37451-420 |
| 3/4"   | 0 – 60                | No gauge          | R37451-220 |
| 3/4"   | 0 – 140               | No gauge          | R37451-120 |
| 3/4"   | 0 – 140               | Flush-mount gauge | R37451-620 |
| 3/4"   | 10 – 200              | No gauge          | R37451-320 |
| 1"   | 0 – 30                | No gauge          | R37461-420 |
| 1"   | 0 – 60                | No gauge          | R37461-220 |
| 1"   | 0 – 140               | No gauge          | R37461-120 |
| 1"   | 0 – 140               | Flush-mount gauge | R37461-620 |
| 1"   | 10 – 200              | No gauge          | R37461-320 |

Adjustment range can exceed spring rating on 0-30 psi and 0-60 psi regulators. The working range of the adjustment knob is designed to permit outlet pressures beyond the spring ratings in the 0-30psi and 0-60psi models. The adjustment knob is not designed to be a pressure limiting device. Limiting devices may be obtained only by special design. For optimal performance, regulators should not be set to ranges outside the specified spring range.

### 3/4" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104453 | Regulator service kit (relieving)     |
| 104454 | Regulator service kit (non-relieving) |
| 104455 | Tamper kit                            |
| 104456 | 0 – 60 psi Spring                     |
| 104457 | 0 – 140 psi Spring                    |
| 104458 | 10 – 200 psi Spring                   |
| 104334 | 0 – 140 psi Gauge flush mount         |

### Accessories

See page 65 for details

| MODEL    | DESCRIPTION            |
|----------|------------------------|
| 104393-5 | 3/4" NPT lockout valve |
| 104393-6 | 1" NPT lockout valve   |
| 104397   | Modular clamp          |
| 104476-5 | 3/4" NPT pipe adapter  |
| 104476-6 | 1" NPT pipe adapter    |
| 104402   | T-type wall mount      |
| 104406   | L-type wall mount      |
| 104410   | C-type wall mount      |
| 104419   | Panel nut              |
| 104469   | Gauge port block       |

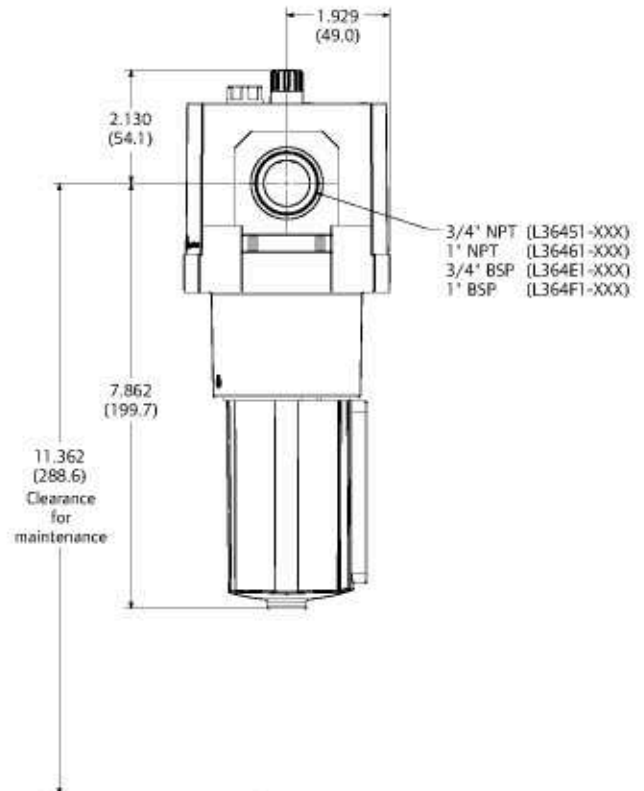
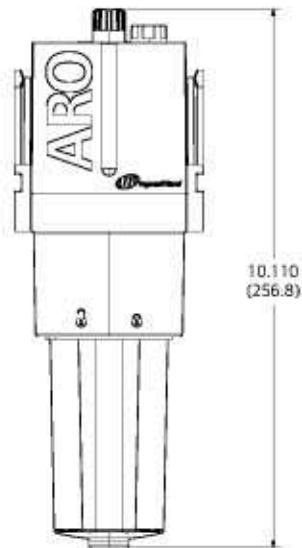
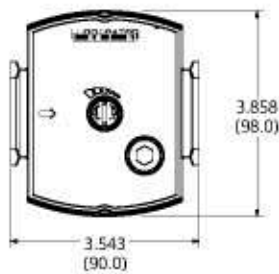


## 3000 Series Lubricators

3/4" and 1" Ports

| Technical data             |                                 |
|----------------------------|---------------------------------|
| Lubricator body            | Aluminum                        |
| Lubricator sight dome      | Nylon                           |
| Lubricator inlet tube      | Urethane                        |
| Seals                      | Nitrile                         |
|                            | METAL /<br>METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)   | 250                             |
| Temperature range (F)      | 23 – 175                        |
| Bowl capacity (oz)         | 3.7                             |
| Flow capacity — 3/4" port* | 330 scfm                        |
| Flow capacity — 1" port*   | 330 scfm                        |

\*Inlet pressure 90 psi (6.2 bar) with 7 psi drop (0.5 bar)



### How to order

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |
|-----------|------------|---|---|---|---|
| Port size | Base model |   |   |   |   |
| 3/4"      | L364 5     | 1 | X | X | X |
| 1"        | L364 6     | 1 | X | X | X |

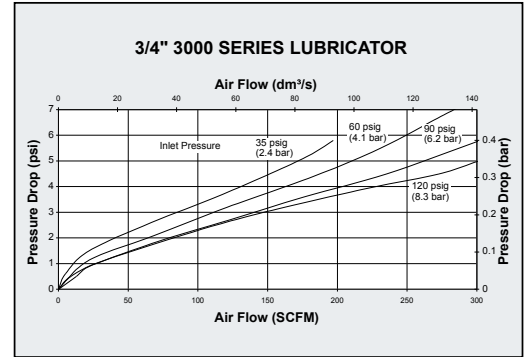
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|                    |                          |                               |                    |
|--------------------|--------------------------|-------------------------------|--------------------|
| <b>Thread type</b> | <b>Adjustment option</b> | <b>Bowl option</b>            | <b>Fill option</b> |
| <b>5</b> 3/4" NPT  | <b>1</b> Standard        | <b>1</b> Metal w/ sight glass | <b>0</b> Standard  |
| <b>6</b> 1" NPT    |                          | <b>2</b> Metal                |                    |
| <b>E</b> 3/4" BSP  |                          |                               |                    |
| <b>F</b> 1" BSP    |                          |                               |                    |

### Popular configurations

| Port size NPT                    | Adjustment option | Bowl cap (oz) | Fill option | Model      |
|----------------------------------|-------------------|---------------|-------------|------------|
| <b>METAL BOWL</b>                |                   |               |             |            |
| 3/4"                             | Standard          | 3.7           | Standard    | L36451-120 |
| 1"                               | Standard          | 3.7           | Standard    | L36461-120 |
| <b>METAL BOWL W/ SIGHT GLASS</b> |                   |               |             |            |
| 3/4"                             | Standard          | 3.7           | Standard    | L36451-110 |
| 1"                               | Standard          | 3.7           | Standard    | L36461-110 |

### 3/4" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                 |
|--------|-----------------------------|
| 104465 | Lubricator bowl service kit |
| 104466 | Sight dome repair kit       |
| 104337 | Metal bowl                  |
| 104338 | Metal bowl w/ sight glass   |

### Accessories

See page 65 for details

| MODEL    | DESCRIPTION            |
|----------|------------------------|
| 104393-5 | 3/4" NPT lockout valve |
| 104393-6 | 1" NPT lockout valve   |
| 104397   | Modular clamp          |
| 104476-5 | 3/4" NPT pipe adapter  |
| 104476-6 | 1" NPT pipe adapter    |
| 104402   | T-type wall mount      |
| 104406   | L-type wall mount      |
| 104410   | C-type wall mount      |

## 3000 Series piggyback filters / regulators

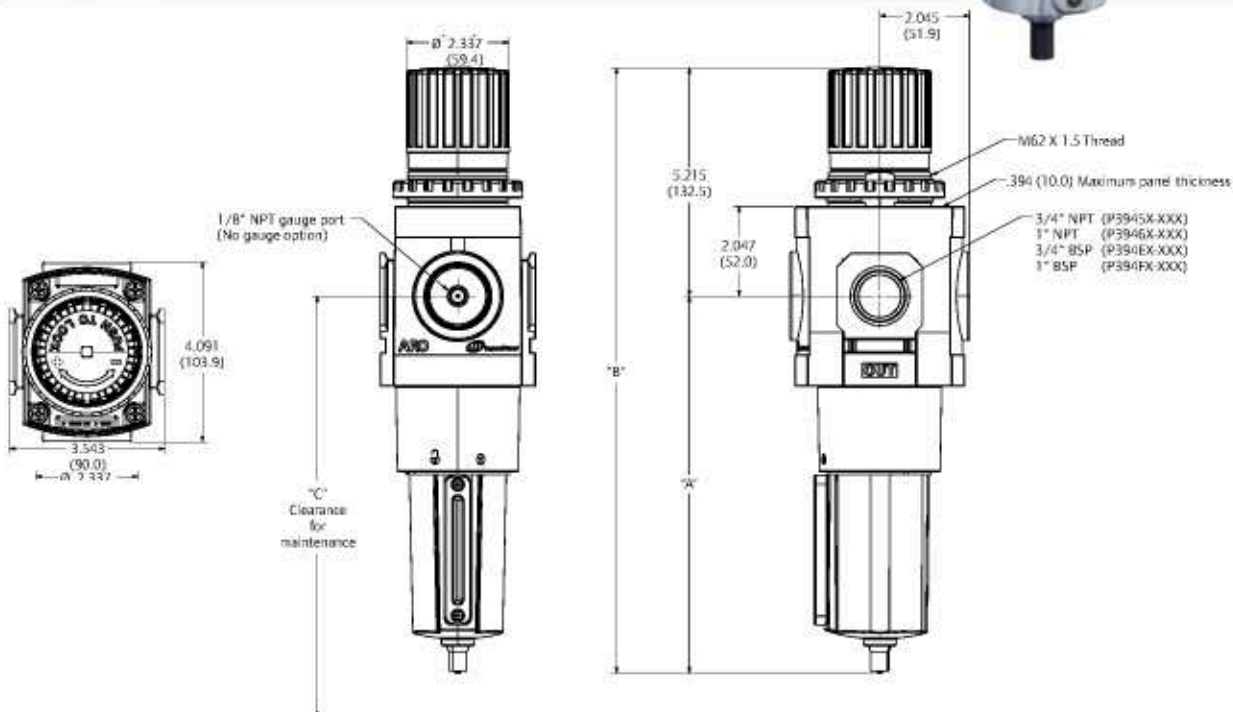
3/4" and 1" Ports

| Technical data               |                                 |
|------------------------------|---------------------------------|
|                              | METAL /<br>METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)     | 250                             |
| Temperature range (F)        | 23 – 175                        |
| Spring range options (psi)   | 0 – 30                          |
|                              | 0 – 60                          |
|                              | 0 – 140                         |
|                              | 10 – 175                        |
| Bowl cap — manual drain (oz) | 5.3                             |
| Bowl cap — auto drain (oz)   | 5.9                             |
| Gauge port                   | 1/8"                            |
| Flow capacity — 3/4" port*   | 236 scfm                        |
| Flow capacity — 1" port*     | 250 scfm                        |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



Panel nut comes standard on all individual piggyback units



| MODEL      | A (MM)        | B (MM)         | C (MM)         | DRAIN     |
|------------|---------------|----------------|----------------|-----------|
| P394XX-XX0 | 8.425 (214.0) | 13.642 (346.5) | 10.925 (277.5) | MANUAL    |
| P394XX-XX4 | 9.472 (240.6) | 14.689 (373.1) | 11.972 (304.1) | AUTOMATIC |



**How to order**

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

|           |            |   |   |   |   |
|-----------|------------|---|---|---|---|
| Port size | Base model |   |   |   |   |
| 3/4"      | - P3945    | X | X | X | X |
| 1"        | - P3946    | X | X | X | X |

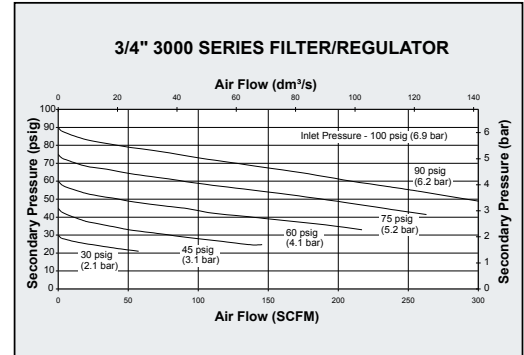
**Note:** Some menu combinations not available. Please consult price book to verify. Popular options are shown in **red** below.

|   |   |  |   |
|---|---|--|---|
| <p><b>Filter element</b></p> <p><b>4</b> 5-Micron</p> <p><b>Thread type</b></p> <p><b>5</b> 3/4" NPT</p> <p><b>6</b> 1" NPT</p> <p><b>E</b> 3/4" BSP</p> <p><b>F</b> 1" BSP</p> | <p><b>Pressure range PSIG</b></p> <p><b>1</b> 0 – 140 (no gauge)</p> <p><b>2</b> 0 – 60 (no gauge)</p> <p><b>3</b> 10 – 175 (no gauge)</p> <p><b>4</b> 0 – 30 (no gauge)</p> <p><b>6</b> 0 – 140 w/ flush-mount gauge</p> | <p><b>Relieving bowl option</b></p> <p><b>1</b> Relieving / metal w/ sight glass</p> <p><b>2</b> Relieving / metal</p> | <p><b>Control / drain option</b></p> <p><b>0</b> Standard knob / manual</p> <p><b>4</b> Standard knob / automatic</p> |
|---|---|--|---|

**Popular configurations**

| Port size NPT   | Drain  | Spring range psi | w/ Gauge | Model      |
|---|--------|------------------|----------|------------|
| <b>5 MICRON • METAL BOWL W/ SIGHT GLASS • RELIEVING</b> |        |                  |          |            |
| 3/4"  | Manual | 0 – 140          | Yes      | P39454-610 |
| 3/4"  | Auto   | 0 – 140          | Yes      | P39454-614 |
| 1"  | Manual | 0 – 140          | Yes      | P39464-610 |
| 1"  | Auto   | 0 – 140          | Yes      | P39464-614 |

**3/4" Pressure drop test**



See page 77 for additional flow charts

**Replacement parts**

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104445 | 5-Micron element                      |
| 104446 | 40-Micron element                     |
| 104450 | Metal bowl w/ sight glass, man.       |
| 104451 | Metal bowl w/ sight glass, auto       |
| 104452 | Filter bowl service kit               |
| 104453 | Regulator service kit (relieving)     |
| 104454 | Regulator service kit (non-relieving) |
| 104455 | Tamper kit                            |
| 104456 | 0 – 60 psi Spring                     |
| 104457 | 0 – 140 psi Spring                    |
| 104458 | 10 – 200 psi Spring                   |
| 104315 | Replacement auto drain*               |
| 104316 | Replacement manual drain              |
| 104322 | Metal bowl, manual drain              |
| 104323 | Metal bowl, auto drain                |
| 104334 | 0 – 140 psi Gauge flush mount         |
| 104337 | Metal bowl                            |
| 104338 | Metal bowl w/ sight glass             |
| 104419 | Panel Nut                             |

\* Replacement auto drains can only be used with auto drain bowls.

3000 Series

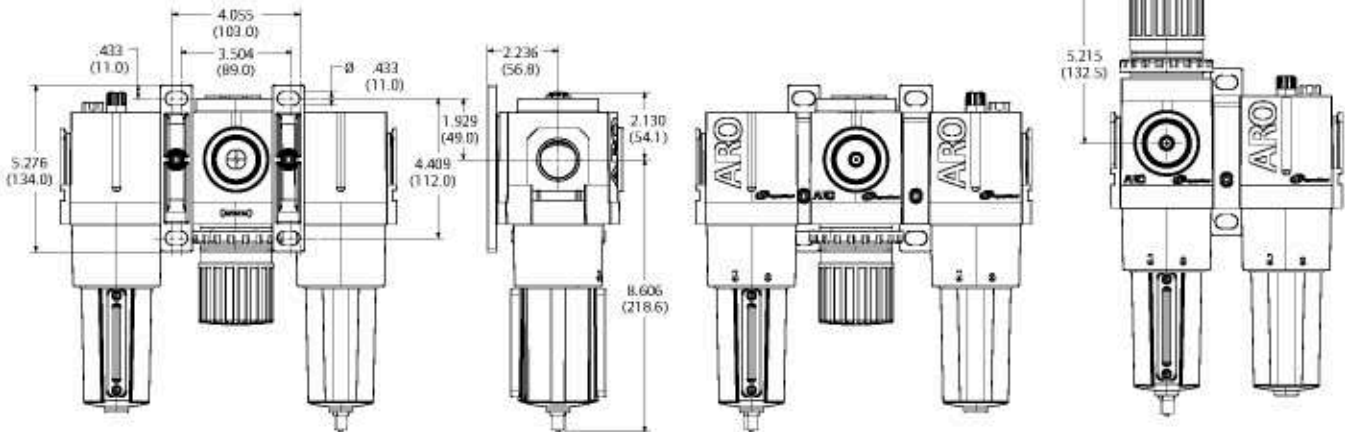
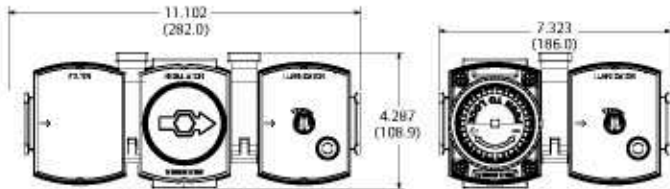


# 3000 Series combinations

3/4" and 1" Ports

| Technical data                      |                              |
|-------------------------------------|------------------------------|
|                                     | METAL / METAL W/ SIGHT GLASS |
| Max inlet pressure (psi)            | 250                          |
| Temperature range (F)               | 23 - 175                     |
| Spring range options (psi)          | 0 - 200                      |
| Filter element                      | 5 micron                     |
| Filter bowl cap — manual drain (oz) | 5.3                          |
| Filter bowl cap — auto drain (oz)   | 5.9                          |
| Lubricator bowl capacity (oz)       | 3.2                          |
| Gauge port                          | 1/8"                         |
| Flow capacity — 3/4" - 2 unit*      | 201 scfm                     |
| Flow capacity — 1" - 2 unit*        | 208 scfm                     |
| Flow capacity — 3/4" - 3 unit*      | 199 scfm                     |
| Flow capacity — 1" - 3 unit*        | 215 scfm                     |

\*Inlet pressure 100 psi (6.9 bar), 90 psi set (6.2 bar), with 33 psi drop (2.3 bar)



### F + R + L Combinations

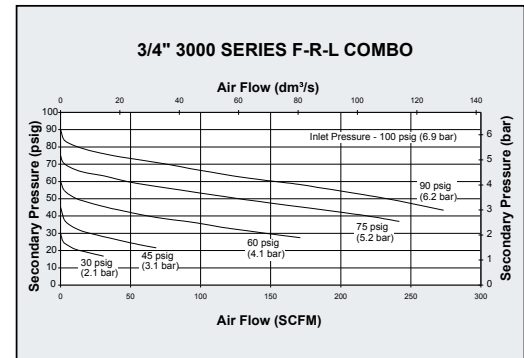
| Port size<br>NPT   | Filter     | Components<br>Regulator | Lubricator | Model      |
|--|------------|-------------------------|------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b> |            |                         |            |            |
| 3/4"   | F35451-410 | R37451-600              | L36451-110 | C38451-810 |
| 1"   | F35461-410 | R37461-600              | L36461-110 | C38461-810 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |            |                         |            |            |
| 3/4"   | F35451-411 | R37451-600              | L36451-110 | C38451-811 |
| 1"   | F35461-411 | R37461-600              | L36461-110 | C38461-811 |

### F/R + L Combinations

| Port size<br>NPT   | Filter-regulator | Components<br>Lubricator | Model      |
|--|------------------|--------------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b> |                  |                          |            |
| 3/4"   | P39454-610       | L36451-110               | C38451-610 |
| 1"   | P39464-610       | L36461-110               | C38461-610 |
| <b>AUTO DRAIN • METAL BOWL W/ SIGHT GLASS • RELIEVING • W/ GAUGE</b>   |                  |                          |            |
| 3/4"   | P39454-614       | L36451-110               | C38451-611 |
| 1"   | P39464-614       | L36461-110               | C38461-611 |

**Note:** Other combinations may be assembled by purchasing the individual components separately. Modular connector kits are required to connect the individual units together.

### 3/4" Pressure drop test



See page 77 for additional flow charts

### Replacement parts

| MODEL  | DESCRIPTION                           |
|--------|---------------------------------------|
| 104445 | 5-Micron element                      |
| 104446 | 40-Micron element                     |
| 104447 | 0.3-Micron element                    |
| 104450 | Metal bowl w/ sight glass, man.       |
| 104451 | Metal bowl w/ sight glass, auto       |
| 104452 | Filter bowl service kit               |
| 104461 | Coalescing filter bowl, manual drain  |
| 104462 | Coalescing filter bowl, auto drain    |
| 104453 | Regulator service kit (relieving)     |
| 104454 | Regulator service kit (non-relieving) |
| 104455 | Tamper kit                            |
| 104456 | 0 – 60 psi Spring                     |
| 104457 | 0 – 140 psi Spring                    |
| 104458 | 10 – 200 psi Spring                   |
| 104465 | Lubricator bowl service kit           |
| 104466 | Sight dome repair kit                 |
| 104315 | Replacement auto drain*               |
| 104316 | Replacement manual drain              |
| 104322 | Metal bowl, manual drain              |
| 104323 | Metal bowl, auto drain                |
| 104334 | 0 – 140 psi Gauge flush mount         |
| 104337 | Metal bowl                            |
| 104338 | Metal bowl w/ sight glass             |
| 104419 | Panel Nut                             |

\* Replacement auto drains can only be used with auto drain bowls.



## Super-duty series standard filters

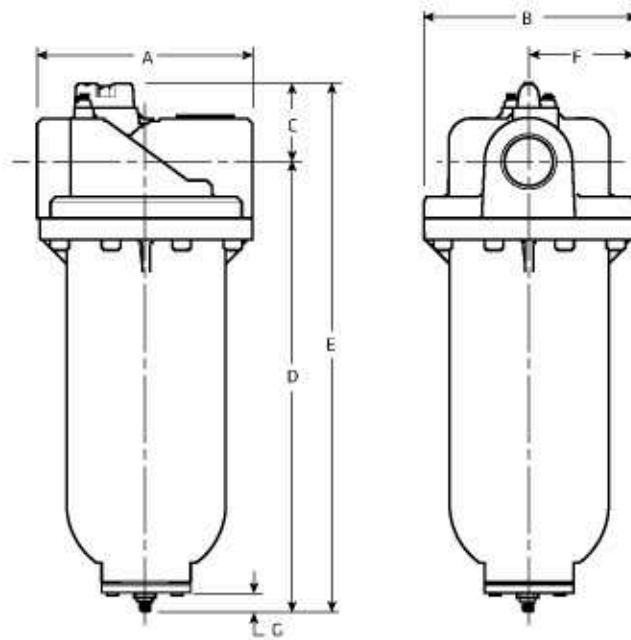
1", 1-1/4", 1-1/2" and 2" Ports

| Technical data                      |  |
|-------------------------------------|--|
| <b>Flow capacity*</b>               | 1" – 323 cfm (152 dm <sup>3</sup> /s)<br>1-1/4" – 970 cfm (458 dm <sup>3</sup> /s)<br>1-1/2" – 1,280 cfm (604 dm <sup>3</sup> /s)<br>2" – 1,400 cfm (660 dm <sup>3</sup> /s) |
| <b>Operating temperature</b>        | 32° – 150° F (0° – 65.5° C)  |
| <b>Max supply pressure</b>          | Without pressure indicator – 300 psig (20.7 bar)**<br>With pressure indicator – 150 psig (10.3 bar)  |
| <b>Standard filtration</b>          | 5 micron   |
| <b>Useful retention<sup>†</sup></b> | 1" = 11.5 oz (.34 liters)<br>1-1/4" - 2" = 27 oz (.8 liters)   |

\*Inlet pressure of 150 psig (10.3 bar). Pressure drop of 5 psig (0.3 bar).

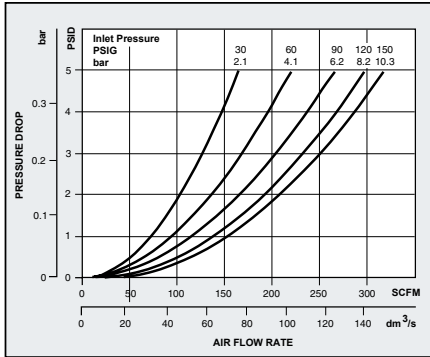
\*\*Without pressure indicator – maximum supply pressure is 300 psig (20.7 bar).

<sup>†</sup>Useful retention refers to volume below the quiet zone baffle.

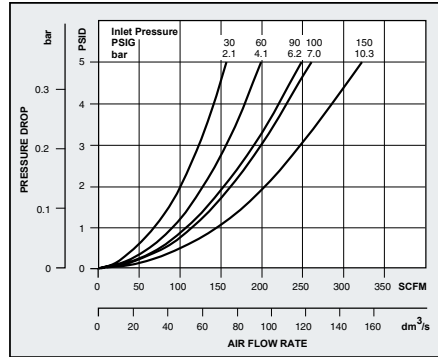


| Models                     | A              | B              | C             | D                 | E               | F               | G             |
|----------------------------|----------------|----------------|---------------|-------------------|-----------------|-----------------|---------------|
| 1-1/4" - 2" - Manual Drain | 7.80" (198 mm) | 7.76" (197 mm) | 2.83" (72 mm) | 16.24" (412.5 mm) | 19.07" (484 mm) | 3.88" (98.6 mm) | 0.55" (14 mm) |
| 1-1/4" - 2" - Auto Drain   | 7.80" (198 mm) | 7.76" (197 mm) | 2.83" (72 mm) | 15.69" (398.5 mm) | 18.52" (470 mm) | 3.88" (98.6 mm) | 0.55" (14 mm) |

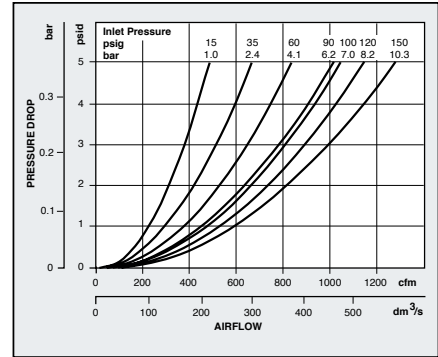
**1" Pressure drop test**



**1-1/4" Pressure drop test**

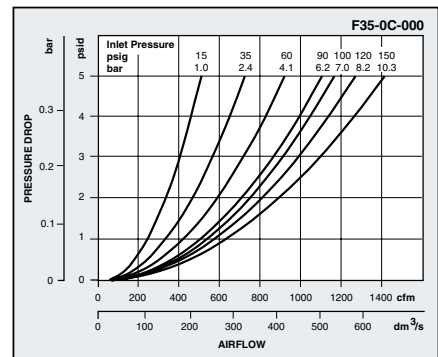


**1-1/2" Pressure drop test**



| Port size NPT                    | Element (microns) | Weight lb (kg) | Model      |
|----------------------------------|-------------------|----------------|------------|
| <b>MANUAL DRAIN • METAL BOWL</b> |                   |                |            |
| 1"                               | 5                 | 5.5 (2.5)      | F35561-410 |
| 1-1/4"                           | 5                 | 19.3 (8.7)     | F35571-410 |
| 1-1/2"                           | 5                 | 19.3 (8.7)     | F35581-410 |
| 2"                               | 5                 | 19.3 (8.7)     | F35591-410 |
| <b>AUTO DRAIN • METAL BOWL</b>   |                   |                |            |
| 1"                               | 5                 | 5.5 (2.5)      | F35561-411 |
| 1-1/4"                           | 5                 | 19.3 (8.7)     | F35571-411 |
| 1-1/2"                           | 5                 | 19.3 (8.7)     | F35581-411 |
| 2"                               | 5                 | 19.3 (8.7)     | F35591-411 |

**2" Pressure drop test**



**Replacement parts**

| SIZE              | DESCRIPTION                          | MODEL  |
|-------------------|--------------------------------------|--------|
| 1" Size           | 5-Micron element                     | 104506 |
| 1" Size           | Bowl kit                             | 104507 |
| All sizes         | Auto drain                           | 104508 |
| All sizes         | Manual drain                         | 104509 |
| 1-1/4" - 2" Sizes | 5-Micron element                     | 104510 |
| All sizes         | Pressure differential indicator      | 104511 |
| All sizes         | Wall mount pipe clamp                | 104512 |
| All sizes         | Manual override drain for auto drain | 104513 |

## Super-duty series coalescing filters

1", 1-1/4", 1-1/2", 2" and 3" Ports

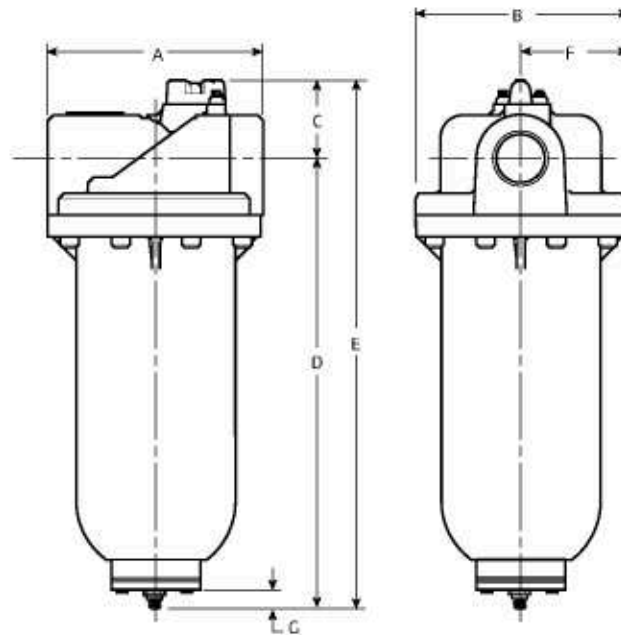
| Technical data                      |   |
|-------------------------------------|---|
| <b>Flow capacity*</b>               | 1 – 419 cfm (197 dm <sup>3</sup> /s)<br>1-1/4" – 741 cfm (350 dm <sup>3</sup> /s)<br>1-1/2" – 710 cfm (335 dm <sup>3</sup> /s)<br>2" – 860 cfm (335 dm <sup>3</sup> /s)<br>3" – 1770 cfm (800 dm <sup>3</sup> /s) |
| <b>Operating temperature</b>        | 32° – 150° F (0° – 65.5° C)   |
| <b>Maximum supply pressure</b>      | Without pressure indicator — 300 psig (20.7 bar) <sup>††</sup><br>With pressure indicator — 150 psig (10.3 bar)   |
| <b>Standard filtration</b>          | 0.01-Micron**   |
| <b>Useful retention<sup>†</sup></b> | 1" = 22 oz (.65 liters)<br>1-1/4" - 2" = 32 oz (.95 liters)<br>3" = 50.7 oz (1.5 liters)  |

\*Inlet pressure 150 psig (10.3 bar). Pressure drop of 3 psig (0.2 bar).

\*\*Filtration temperature of 70° F (21° C) @ 100 psig (6.9 bar) with typical compressor lubricating oil and protected by Type "C" filter.

<sup>†</sup>Useful retention refers to volume below the quiet zone baffle.

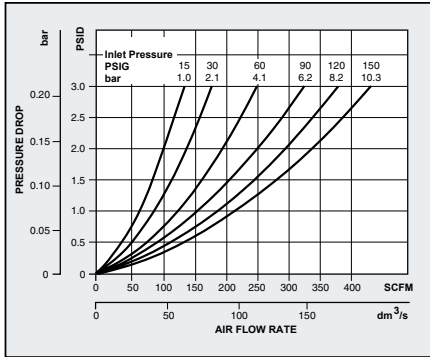
<sup>††</sup>Without differential pressure indicator – Maximum supply pressure is 300 psig (20.7 bar).



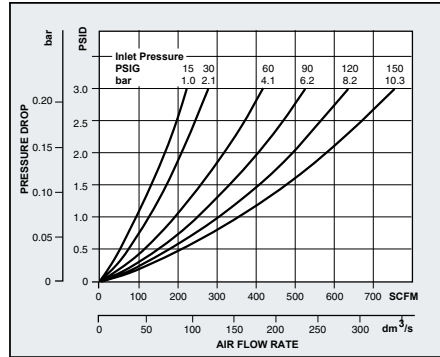
| Models                     | A              | B                | C             | D                 | E               | F                | G             |
|----------------------------|----------------|------------------|---------------|-------------------|-----------------|------------------|---------------|
| 1-1/4" - 2" - Manual Drain | 7.80" (198 mm) | 7.75" (197 mm)   | 2.83" (72 mm) | 16.24" (412.5 mm) | 19.07" (484 mm) | 3.88" (98.6 mm)  | 0.55" (14 mm) |
| 1-1/4" - 2" - Auto Drain   | 7.80" (198 mm) | 7.75" (197 mm)   | 2.83" (72 mm) | 15.69" (398.5 mm) | 18.52" (470 mm) | 3.88" (98.6 mm)  | 0.55" (14 mm) |
| 3" - Manual Drain          | 8.94" (227 mm) | 8.88" (225.5 mm) | 3.48" (88 mm) | 25.96" (660 mm)   | 29.44" (748 mm) | 4.44" (112.8 mm) | 0.55" (14 mm) |



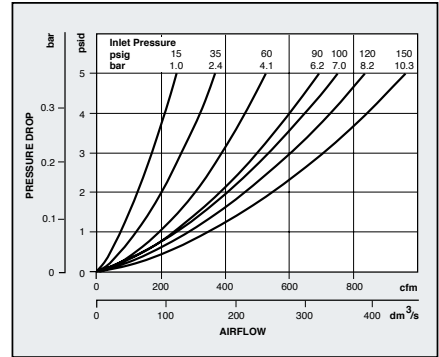
1" Pressure drop test



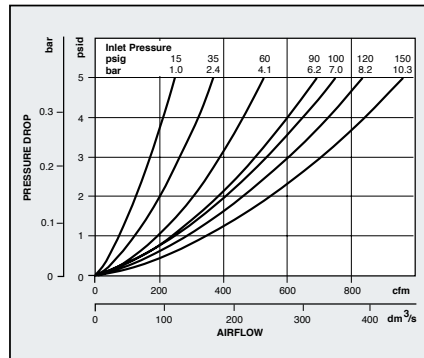
1-1/4" Pressure drop test



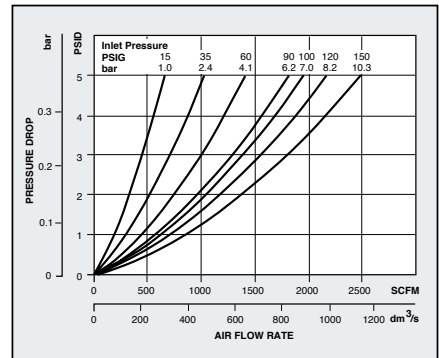
1-1/2" Pressure drop test



2" Pressure drop test



3" Pressure drop test



| Port size<br>NPT                 | Element<br>(microns) | Weight<br>lb (kg) | Model      |
|----------------------------------|----------------------|-------------------|------------|
| <b>MANUAL DRAIN • METAL BOWL</b> |                      |                   |            |
| 1"                               | .01                  | 13.0 (5.9)        | F35561-310 |
| 1-1/4"                           | .01                  | 13.0 (5.9)        | F35571-310 |
| 1-1/2"                           | .01                  | 19.3 (8.7)        | F35581-310 |
| 2"                               | .01                  | 19.3 (8.7)        | F35591-310 |
| 3"                               | .01                  | 32.8 (14.9)       | F35501-310 |
| <b>AUTO DRAIN • METAL BOWL</b>   |                      |                   |            |
| 1"                               | .01                  | 13.0 (5.9)        | F35561-311 |
| 1-1/4"                           | .01                  | 13.0 (5.9)        | F35571-311 |
| 1-1/2"                           | .01                  | 19.3 (8.7)        | F35581-311 |
| 2"                               | .01                  | 19.3 (8.7)        | F35591-311 |
| 3"                               | .01                  | 32.8 (14.9)       | F35501-311 |

| <b>Replacement parts</b> |                                 |        |
|--------------------------|---------------------------------|--------|
| SIZE                     | DESCRIPTION                     | MODEL  |
| All sizes                | Pressure differential indicator | 104511 |
| All sizes                | Wall mount pipe clamp           | 104512 |
| All sizes                | Manual override drain for auto  | 104513 |
| 1", 1-1/4" Sizes         | .01-Micron element              | 104514 |
| 1-1/2" - 2" Sizes        | .01-Micron element              | 104515 |
| 3" Size                  | .01-Micron element              | 104516 |

Super-Duty Series

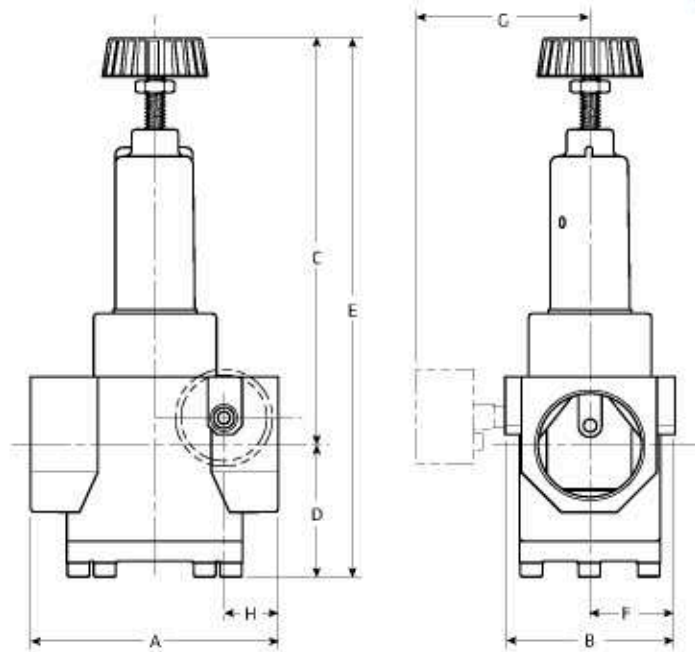
## Super-duty series regulators

1", 1-1/4", 1-1/2" and 2" Ports

| Technical data               |  |
|------------------------------|--|
| <b>Flow capacity</b>         | 1" – 500 cfm (236 dm <sup>3</sup> /s)<br>1-1/4" – 800 cfm (377 dm <sup>3</sup> /s)*<br>1-1/2", 2" – 1,200 cfm (566 dm <sup>3</sup> /s)** |
| <b>Operating temperature</b> | 32° – 150° F (0° – 65.5° C)  |
| <b>Max supply pressure</b>   | 300 psig (20.7 bar)  |
| <b>Adjusting range</b>       | 0 – 125 psig (0 – 8.6 bar)<br>0 – 180 psig (0 – 12.4 bar)  |
| <b>Pressure</b>              | 0 – 180 psig (0 – 12.4 bar)  |
| <b>Gauge port (2 each)</b>   | NPT / BSPT-Rc – 1/4"   |

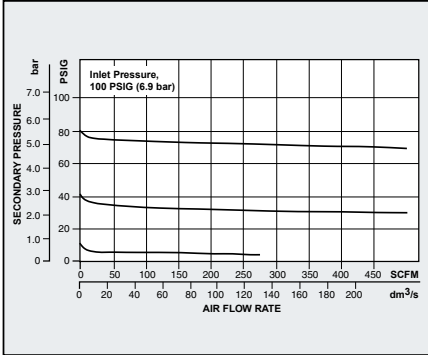
\*Inlet pressure of 100 psig (6.9 bar). Secondary pressure of 80 psig (5.5 bar).

\*\*Inlet pressure of 100 psig (6.9 bar). Secondary pressure of 85 psig (5.9 bar).

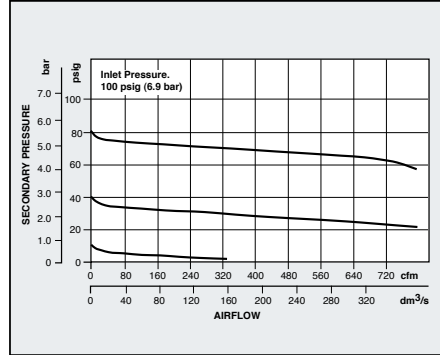


| Models              | A              | B               | C                | D             | E               | F               | G | H               |
|---------------------|----------------|-----------------|------------------|---------------|-----------------|-----------------|---|-----------------|
| 1", 1-1/4" No Gauge | 4.29" (109 mm) | 2.62" (66.5 mm) | 8.62" (218.9 mm) | 1.69" (43 mm) | 10.31" (262 mm) | 1.31" (33.3 mm) | - | 1.23" (31.2 mm) |
| 1-1/2", 2" No Gauge | 5.31" (135 mm) | 3.58" (91 mm)   | 9.09" (230.8 mm) | 2.79" (71 mm) | 11.88" (302 mm) | 1.79" (45.5 mm) | - | 1.15" (29.2 mm) |

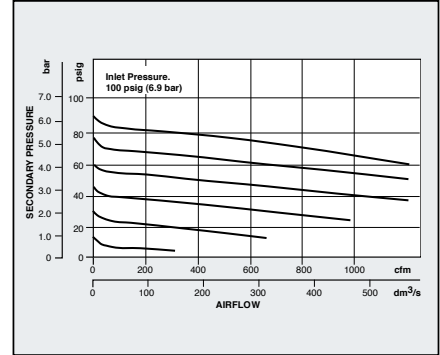
**1" Pressure drop test**



**1-1/4" Pressure drop test**

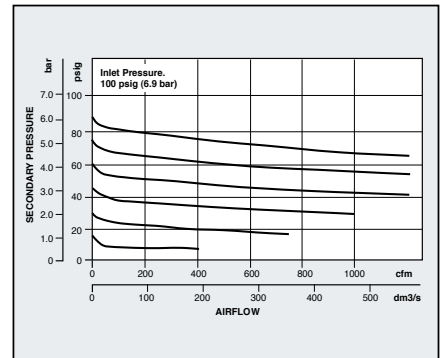


**1-1/2" Pressure drop test**



| Port size<br>NPT            | Pressure range<br>psi | Weight<br>lb (kg) | Model      |
|-----------------------------|-----------------------|-------------------|------------|
| <b>RELIEVING • NO GAUGE</b> |                       |                   |            |
| 1"                          | 0 – 125               | 6.0 (2.7)         | R37561-100 |
| 1"                          | 0 – 180               | 6.0 (2.7)         | R37561-300 |
| 1-1/4"                      | 0 – 125               | 6.0 (2.7)         | R37571-100 |
| 1-1/4"                      | 0 – 180               | 6.0 (2.7)         | R37571-300 |
| 1-1/2"                      | 0 – 125               | 10.8 (4.9)        | R37581-100 |
| 1-1/2"                      | 0 – 180               | 10.8 (4.9)        | R37581-300 |
| 2"                          | 0 – 125               | 10.8 (4.9)        | R37591-100 |
| 2"                          | 0 – 180               | 10.8 (4.9)        | R37591-300 |

**2" Pressure drop test**



**Replacement parts**

| SIZE             | DESCRIPTION                           | MODEL  |
|------------------|---------------------------------------|--------|
| All sizes        | Wall mount pipe clamp                 | 104512 |
| All sizes        | Relieving piston kit                  | 104518 |
| 1", 1-1/4" Sizes | 1", 1-1/4" Valve assembly kit         | 104519 |
| 1-1/2", 2" Sizes | 1-1/2", 2" Valve assembly kit         | 104520 |
| 1/4" Gauge Port  | Gauge, 0-160, 2" dia., steel / glass  | 104502 |
| 1/4" Gauge Port  | Gauge, 0-160, 2" dia., plastic / poly | 104504 |
| 1/4" Gauge Port  | Gauge, 0-250, 2" dia., steel / glass  | 104503 |
| 1/4" Gauge Port  | Gauge, 0-250, 2" dia., plastic / poly | 104505 |

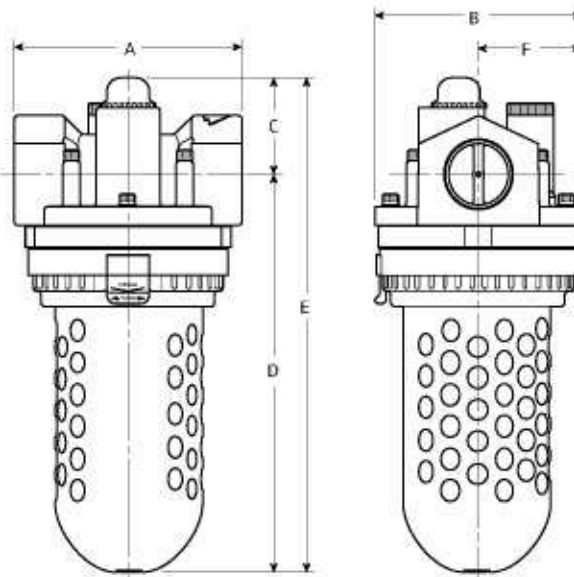


## Super-duty series lubricators

1", 1-1/4", 1-1/2" and 2" Ports

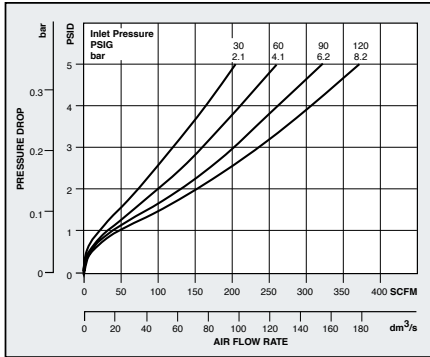
| Technical data                  |  |
|---------------------------------|--|
| <b>Flow capacity</b>            | 1 – 374 cfm (176 dm <sup>3</sup> /s)<br>1-1/4", 1-1/2" – 927 cfm (437 dm <sup>3</sup> /s)*<br>2" – 1,186 cfm (560 dm <sup>3</sup> /s)* |
| <b>Operating temperature</b>    | Plastic bowl –<br>32° – 125° F (0° – 52° C)<br>Metal bowl (L50) –<br>32° – 150° F (0° – 65.5° C)                                       |
| <b>Max supply pressure</b>      | Plastic bowl – 150 psig (10.3 bar)<br>Metal bowl (L50) – 200 psig (13.8 bar)   |
| <b>Min flow for lubrication</b> | 1 cfm @ 100 psig   |
| <b>Useful retention**</b>       | 26 oz (769 cm <sup>3</sup> )   |

\*Inlet pressure of 120 psig (8.3 bar). Pressure drop of 5 psid (0.3 bar).  
\*\*Useful retention refers to usable volume.

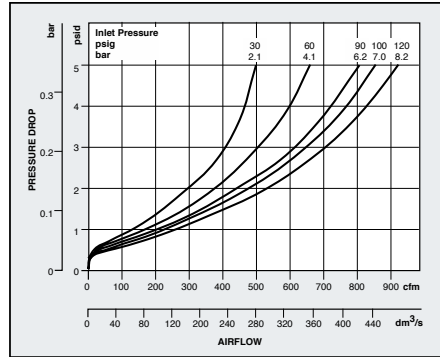


| Models                         | A              | B              | C             | D              | E               | F               |
|--------------------------------|----------------|----------------|---------------|----------------|-----------------|-----------------|
| 1" - Poly Bowl                 | 4.63" (117 mm) | 4.79" (122 mm) | 1.98" (50 mm) | 8.36" (212 mm) | 10.34" (263 mm) | 2.40" (61 mm)   |
| 1" - Metal Bowl w/ Sight Gauge | 4.63" (117 mm) | 4.79" (122 mm) | 1.98" (50 mm) | 8.90" (226 mm) | 10.90" (277 mm) | 2.40" (61 mm)   |
| 1-1/4", 1-1/2"                 | 5.50" (140 mm) | 5.00" (127 mm) | 2.28" (58 mm) | 9.33" (237 mm) | 11.60" (295 mm) | 2.41" (61.2 mm) |
| 2"                             | 5.50" (140 mm) | 5.00" (127 mm) | 2.60" (66 mm) | 9.64" (245 mm) | 12.24" (311 mm) | 2.41" (61.2 mm) |

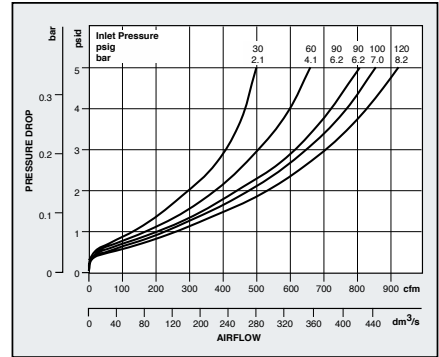
**1" Pressure drop test**



**1-1/4" Pressure drop test**

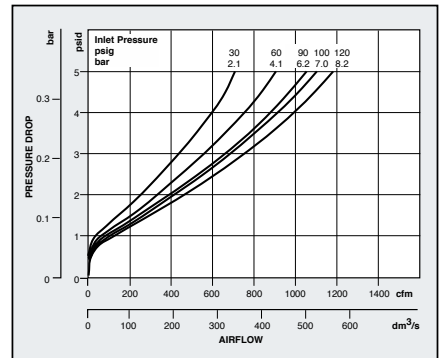


**1-1/2" Pressure drop test**



| Port size<br>NPT                   | Weight<br>lb (kg) | Model      |
|------------------------------------|-------------------|------------|
| <b>METAL BOWL W/ SIGHT GAUGE</b>   |                   |            |
| 1"                                 | 5.6 (2.5)         | L36561-110 |
| 1-1/4"                             | 9.4 (4.3)         | L36571-110 |
| 1-1/2"                             | 9.4 (4.3)         | L36581-110 |
| 2"                                 | 10.2 (4.6)        | L36591-110 |
| <b>POLYCARBONATE BOWL W/ GUARD</b> |                   |            |
| 1"                                 | 5.6 (2.5)         | L36561-100 |
| 1-1/4"                             | 9.4 (4.3)         | L36571-100 |
| 1-1/2"                             | 9.4 (4.3)         | L36581-100 |
| 2"                                 | 10.2 (4.6)        | L36591-100 |

**2" Pressure drop test**



**Replacement parts**

| SIZE                 | DESCRIPTION                                  | MODEL  |
|----------------------|--|--------|
| 1", 1-1/4", 2" Sizes | Replacement poly bowl w/ guard, manual drain | 104525 |
| 1" Size              | Wall mount pipe clamp                        | 104512 |
| 1" Size              | Force fill adapter                           | 104526 |
| All Sizes            | Sight dome kit                               | 104527 |
| All Sizes            | Siphon tube and bronze filter                | 104528 |
| 1-1/4" - 2" Sizes    | Force fill adapter                           | 104530 |

## Brass regulators

1/8" and 1/4" Ports

| Technical data        |  |
|-----------------------|--|
| Max inlet pressure    | 250 psig (17 bar)                                |
| Max adjusted pressure | 125 psig (8.6 bar)                               |
| Operating temperature | 0° to 150°F (-18° to 65°C)                       |
| Weight                | 1/8" = 0.75 lb (345 g)<br>1/4" = 0.67 lb (306 g) |
| Air flow*             | 1/8" = 13 scfm<br>1/4" = 13 scfm                 |
| Water flow**          | 1/8" = 1.75 gpm<br>1/4" = 2.0 gpm                |

\*Air flow is at 125 PSIG (8.6 bar) inlet and 100 PSIG (6.9 bar) outlet.  
\*\*Water flow is at 60 PSIG (4.1 bar) inlet and 40 PSIG (2.8 bar) outlet.

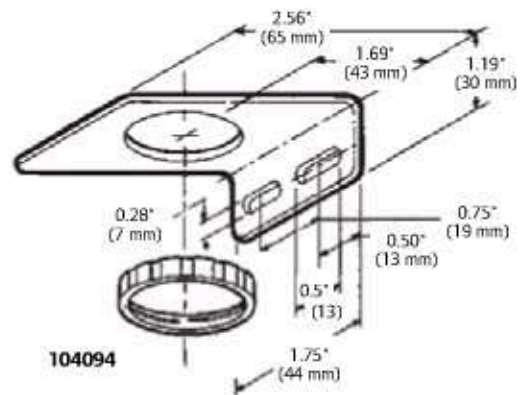
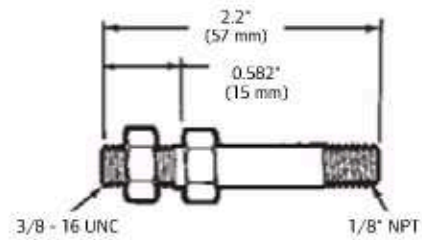
**Warning:** These regulators are designed for use in industrial compressed air or water systems only. Never use these regulators where pressure or temperature can exceed the rated operating conditions. See SPECIFICATIONS.



Stud mount  
P/N 104039



Mounting  
bracket  
P/N 29668





## Features

### For accurate, low-cost control of air and water flow

- **Corrosion protection** — Brass body with internal stainless steel valve spring provides corrosion protection against regulated fluids
- **Accurate, reliable control** — Non-rising, locking adjustment knob maintains the desired setting
- **Mounting flexibility** — Panel mounting nut is part of the regulator and is included at no additional cost. Industry standard 1-3/16" - 18 threaded spring housing enables easy panel mounting (max. panel thickness is 3/16"). Available mounting bracket and stud mount provide a choice of wall mountings. Compact size is ideal for installations where space is limited
- **Durability** — Brass construction makes this regulator the perfect choice for your most rugged and demanding air and water applications

| Port size<br>NPT            | Gauge<br>port NPT | Model      |
|-----------------------------|-------------------|------------|
| <b>RELIEVING</b>            |                   |            |
| 1/8"                        | 1/8"              | B27112-000 |
| 1/4"                        | 1/8"              | B27122-000 |
| <b>RELIEVING 0 – 50 PSI</b> |                   |            |
| 1/4"                        | 1/8"              | B27122-100 |
| <b>NONRELIEVING</b>         |                   |            |
| 1/4"                        | 1/8"              | B27122-020 |

## Applications

|                                       |
|---------------------------------------|
| Medical and dental equipment          |
| Beverage dispensing equipment         |
| Lawn irrigation systems               |
| Water purification systems            |
| Car wash equipment                    |
| Miniature pneumatic plumbing circuits |

## Accessories

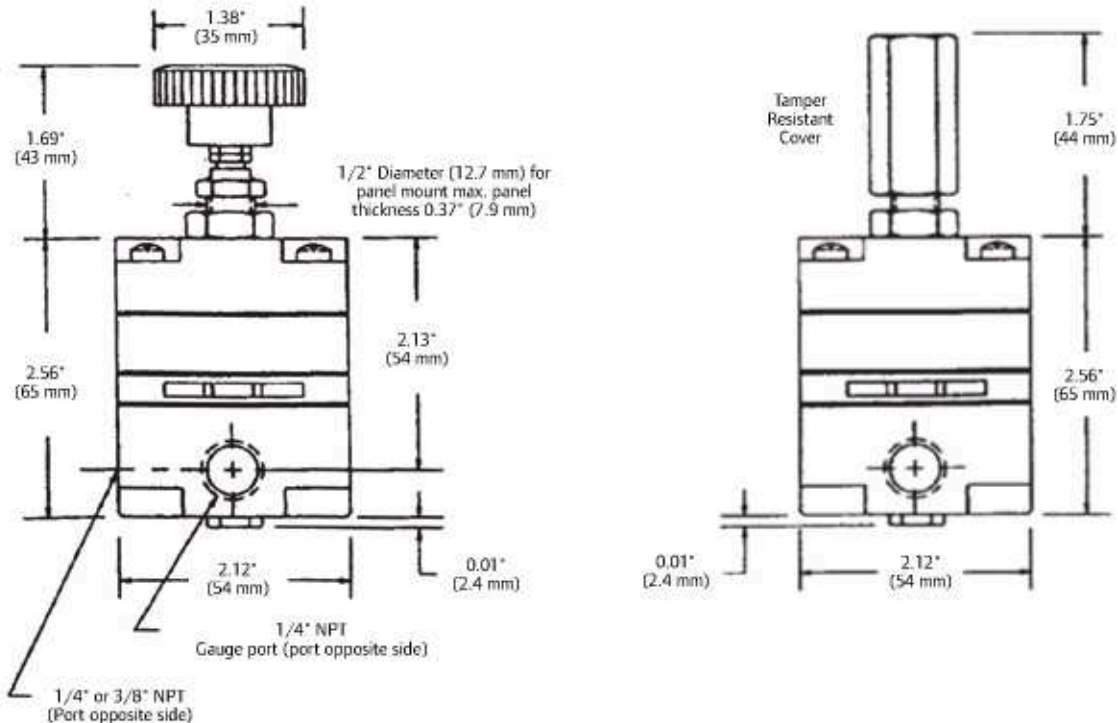
| MODEL  | DESCRIPTION                                     |
|--------|---|
| 29850  | Gauge* 0 – 160 psig (0 – 11 bar)                |
| 29668  | Mounting bracket                                |
| 104094 | Panel mounting nut<br>(included with regulator) |
| 104039 | Stud mounting                                   |

\*Gauge has polycarbonate lens.

## Precision / air regulators

1/4" and 3/8" Ports

| Technical data              |  |
|-----------------------------|--|
| Body                        | Zinc die-cast  |
| Diaphragm                   | Buna N   |
| Metering capsule            | Stainless steel  |
| Knob                        | Phenolic plastic   |
| Flow capacity               | 14 scfm (25 m <sup>3</sup> /hr)  |
| Exhaust capacity            | Up to 10 scfm (17 m <sup>3</sup> /hr)  |
| Sensitivity                 | 0.125" (3.2 mm) water column   |
| Total air consumption       | 6 scfh (.17 m <sup>3</sup> /hr)  |
| Pilot bleed rate            | 0.08 scfm (0.15 m <sup>3</sup> /hr)  |
| Supply pressure variation   | Less than 0.005 PSIG (0.03 kpa) @ 25 psig variance                                   |
| Maximum supply pressure     | 150 psig (1050 kpa) A filter with 5-Micron element should be installed ahead of unit |
| Operating temperature range | 20° to 150°F (-7° to 66°C)   |



**Features**

Precision / air regulators are high precision, multi-stage pressure regulators. The highest degrees of regulation and repeatability are achievable by reacting to downstream pressure fluctuations as small as 0.01 psig (0.07 kPa) above set pressure. Action occurs as downstream pressure is piloted to the control chamber to act on a finely tuned, stainless steel measuring capsule. **A continuous bleed of less than 0.08 scfm (0.15 m<sup>3</sup>/hr) works on the pilot diaphragm causing appropriate movement of the supply valve or the relief valve.** Movements as small as .0001" (.0025 mm) will cause the main valve to correct to the proper position. Relief flows of up to 10 scfm can be achieved on the high relief model (-100 models). Exhaust is achieved through the exhaust vents located in the side of the body.

- The precision / air regulator controls output pressure with an accuracy of 0.1 percent, and has very low sensitivity to changes in supply pressure and flow
- The regulator has been designed to eliminate the need for any readjustment of the regulated pressure after long "down time." At start-up, the regulated pressure will return to its output setting
- The regulated pressure is held constant over substantial changes in flow due to the high-gain pneumatic servoamplifier. Particularly good from dead-end to 12 scfm (203.4 m<sup>3</sup>/hr.)
- The unit may be installed in any position. It can be panel mounted or supported by in-line plumbing

**How to order**

To configure the desired part number, use the chart below to select the port size, thread type, and configuration options.

Port size Base model  
 1/4" - PR4021 - X X X  
 3/8" - PR4031 - X X X

**Note:** Some menu combinations not available. Please consult price book to verify.

- |                            |                              |                               |
|----------------------------|------------------------------|-------------------------------|
| <b>Pressure range PSIG</b> | <b>Relieving bowl option</b> | <b>Control / drain option</b> |
| 1 2 - 120 (no gauge)       | 0 Relieving                  | 0 Standard knob               |
| 2 2 - 60 (no gauge)        |                              | 3 Tamper resistant cover      |
| 3 2 - 25 (no gauge)        |                              |                               |

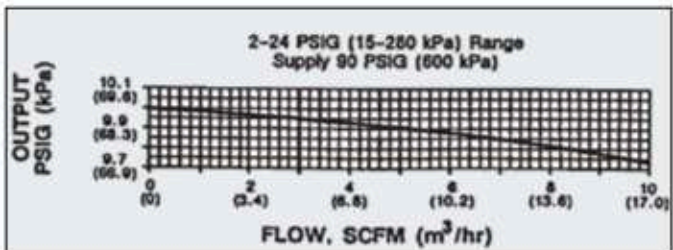
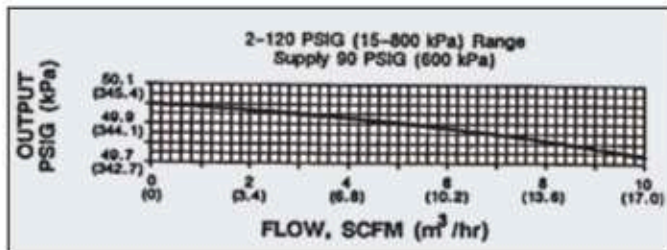
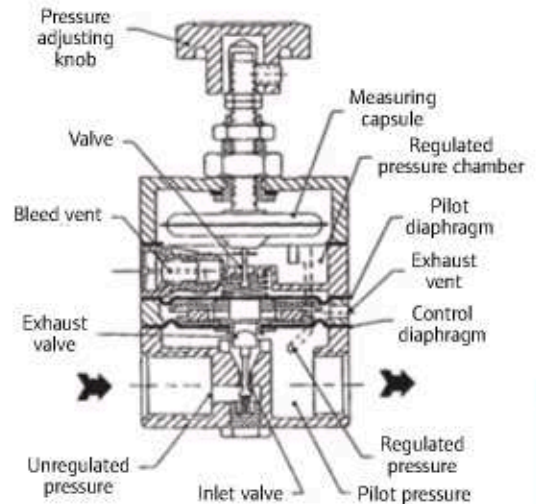
| Port size<br>NPT | Flow                            | Models<br>spring range         |                                | Weight<br>lb (kg) |
|------------------|---------------------------------|--------------------------------|--------------------------------|-------------------|
|                  | 2 - 120 psig<br>(0.4 - 8.6 bar) | 2 - 60 psig<br>(0.4 - 4.1 bar) | 2 - 25 psig<br>(0.4 - 1.7 bar) |                   |
| 1/4"             | PR4021-100                      | PR4021-200                     | PR4021-300                     | 1.4 (0.64)        |
| 3/8"             | PR4031-100                      | PR4031-200                     | PR4031-300                     | 1.4 (0.64)        |

**Applications**

- Air gauging
- Gas mixing
- Web tensioning
- Roll loading
- Air hoists

**Accessories**

| MODEL    | DESCRIPTION                         |
|----------|-------------------------------------|
| 100207-1 | 2 - 25 lb or 2 - 60 lb spring range |
| 100207-2 | 2 - 120 lb spring range             |



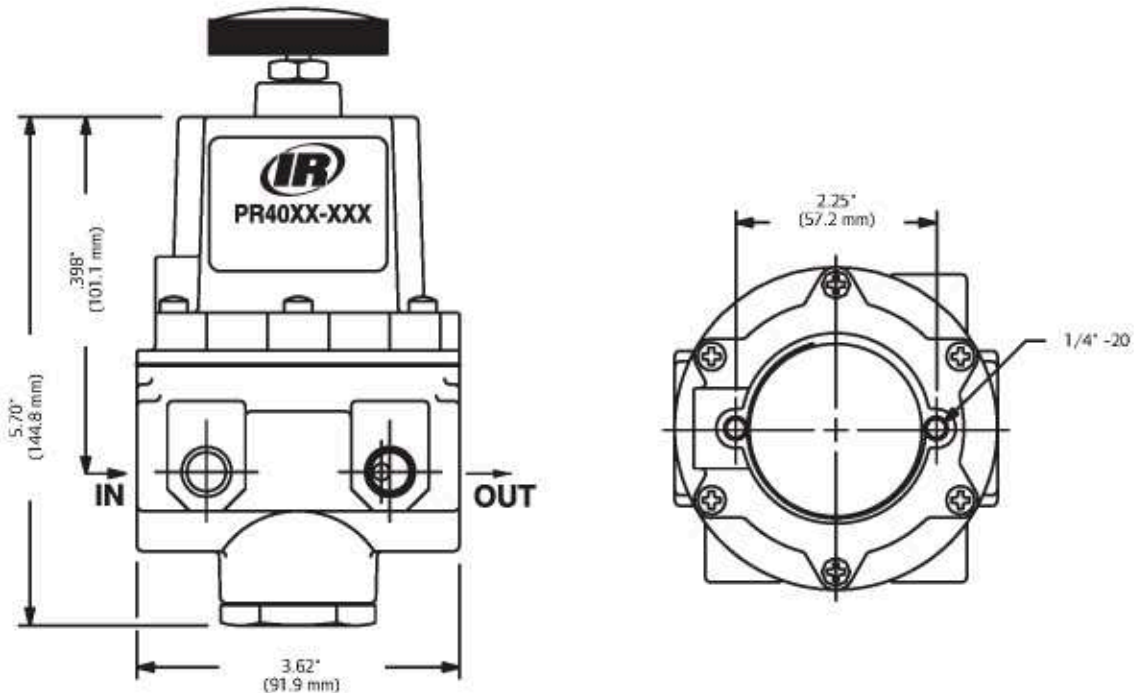
Specialty Items



## High-flow precision regulators

3/8", 1/2", and 3/4" Ports

| Technical data   |  |
|--|--|
| <b>Materials of construction</b>                       | Body — die cast zinc<br>Bonnet — die cast aluminum alloy<br>Knob — phenolic plastic, plated steel<br>Diaphragms — nitrile elastomers |
| <b>Temperature range</b>                               | -20° to 180° F (-29° to 82° C)   |
| <b>Maximum pressure</b>                                | 400 psig (27.6 bar)  |
| <b>Media</b>   | Compressed air   |
| <b>Gauge ports</b>                                     | 1/4 — 18 NPTF  |
| <b>Flow @ 100 psig supply</b>                          | 200 scfm (11.4 bar), see charts  |
| <b>Weight</b>  | Approx. 5 lb (2.3 kg)  |
| <b>Effect of supply pressure on regulated pressure</b> | Less than $\pm 0.35$ psig (0.02 bar) for a supply variation of 100 psig (6.9 bar)  |



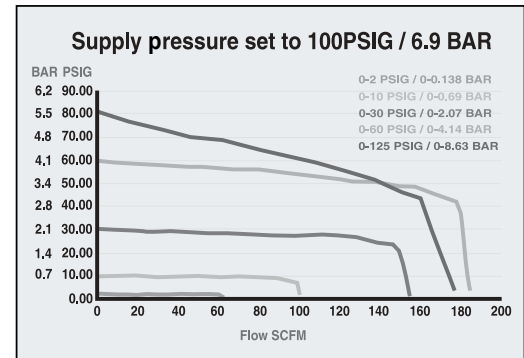
## Features

- Flow rates of up to 200 scfm
- The ARO high-flow precision regulator is a direct acting, diaphragm-operated regulator. Once set to a desired output pressure, the regulator maintains the setting permanently
- Available in 3/8", 1/2", and 3/4" NPT
- Rugged die-cast zinc and aluminum housings are pressure tested for safe operation and can handle harsh and abusive environments

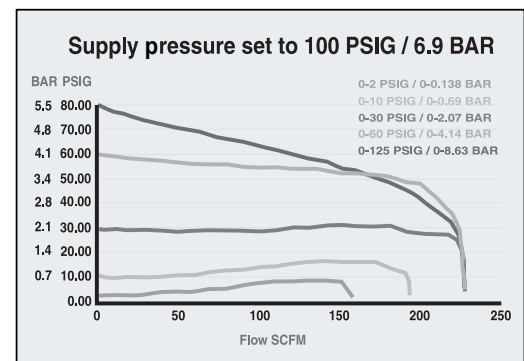
The ARO high-flow precision regulator is designed for applications that require large flow capability and accurate pressure control. With low droop, high accuracy, fine adjustment control, these units are excellent in material handling and conveyor applications. The use of a rolling diaphragm provides excellent sensitivity and improved accuracy while a balance pintle minimizes output pressure changes caused by fluctuations in the supply pressure. With a maximum supply pressure of 400 psig (22.7 bar) and output ranges up to 125 psig (8.6 bar) flow rates of 200 scfm can be achieved.

| Model      | Description  | Pressure range |
|------------|--|----------------|
| PR4033-200 | 3/8" NPT regulator   | 0 – 60 psig    |
| PR4033-300 | 3/8" NPT regulator   | 0 – 30 psig    |
| PR4044-200 | 1/2" NPT regulator   | 0 – 60 psig    |
| PR4044-300 | 1/2" NPT regulator   | 0 – 30 psig    |
| PR4055-200 | 3/4" NPT regulator   | 0 – 60 psig    |
| PR4055-300 | 3/4" NPT regulator   | 0 – 30 psig    |
| 104270     | Repair kit (includes diaphragm assembly and pintle assembly) |                |
| 104271     | Mounting bracket   |                |

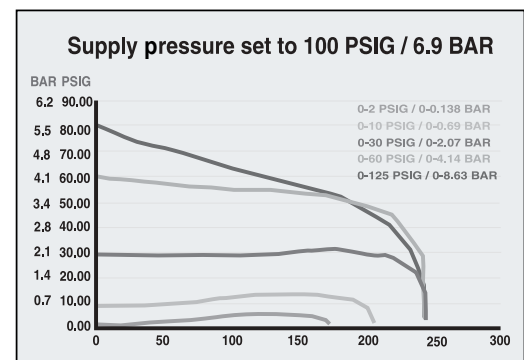
## 3/8" Pressure drop test



## 1/2" Pressure drop test



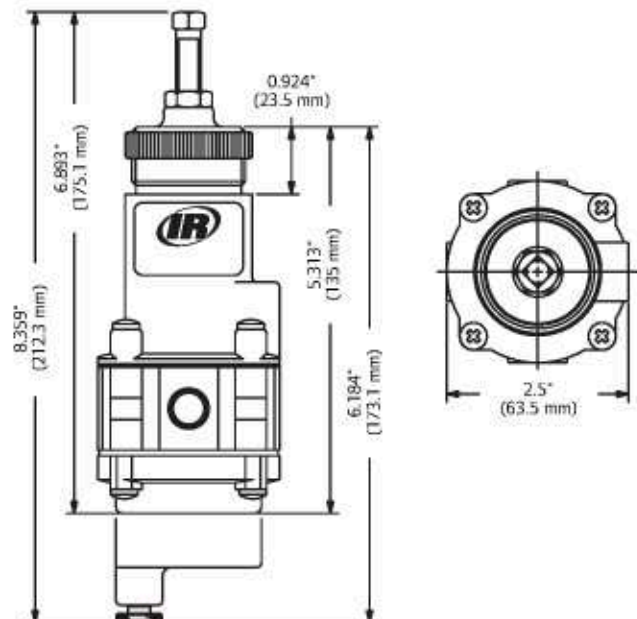
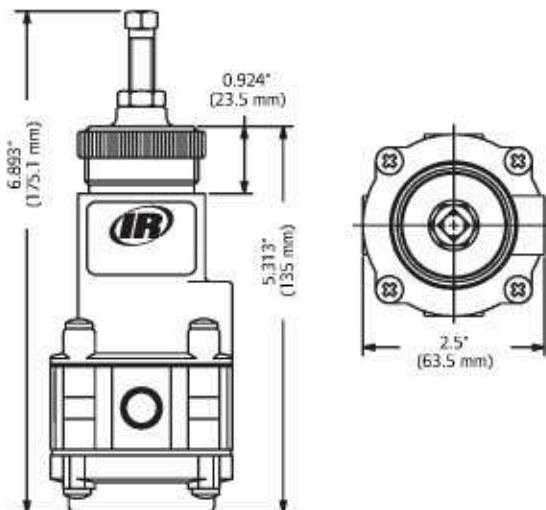
## 3/4" Pressure drop test



## Stainless-steel precision regulators and filter / regulators

1/4" and 3/8" Ports

| Technical data  |  |
|---|--|
| PFRSX1-X00 / PRS5X1-X00   |  |
| Materials of construction                                       | 316 stainless                                    |
| Seals   | Fluorocarbon                                     |
| Filter elements   | 5-Micron<br>(for use with PFRSX1-X00 units only) |
| Temperature range   | -20° to 180° F (-29° to 82° C)                   |
| Maximum pressure  | 250 psig (17.2 bar)                              |
| Media   | Compressed air                                   |
| Gauge ports   | 1/4-18 NPTF                                      |
| Flow @ 100 psig (6.9 bar)<br>Supply 20 psig (1.4 bar)<br>Outlet | 20 scfm (566 lpm)                                |

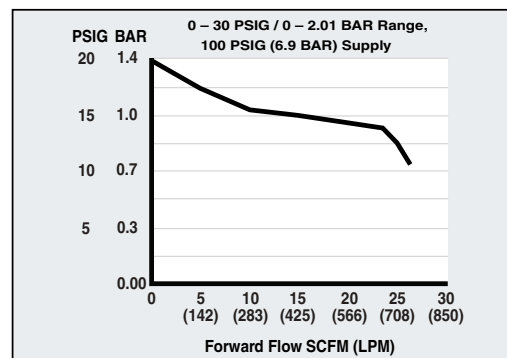


## Features

- Stainless-steel construction is ideal for corrosive environments and sour gas
- Excellent repeatability
- Tapped vent for exhaust gas capture
- Once set to a desired pressure, the ARO 316 stainless steel regulator will permanently maintain their settings through the use of a convoluted diaphragm. This diaphragm provides constant adjustment to downstream pressure drop, and downstream pressure increase
- 1/4" and 3/8" NPT
- Panel mount nut standard

This precision regulator line is designed for service with a wide variety of corrosive gases and environments. Its corrosive resistant materials are compatible with sour gas and for use in offshore environments. Applications include: petrochemical processing, chemical plants, food processing and packaging, and paper / pulp mills. The regulator operates in pressure ranges up to 150 psig (10.3 bar). The filter on the filter / regulator unit has a built-in dripwell which traps water, oil, and other contaminants. The contaminants are easily flushed out via a convenient manual drain. The 5-micron filter element is made of 316 stainless and is easily removed for cleaning.

## Pressure drop test



| Model      | Description                          | Pressure range |
|------------|--------------------------------------|----------------|
| PRSS21-200 | 1/4" NPT regulator                   | 0 – 60 psig    |
| PRSS21-400 | 1/4" NPT regulator                   | 0 – 30 psig    |
| PRSS21-500 | 1/4" NPT regulator                   | 0 – 100 psig   |
| PRSS21-600 | 1/4" NPT regulator                   | 2 – 150 psig   |
| PRSS31-200 | 3/8" NPT regulator                   | 0 – 60 psig    |
| PRSS31-400 | 3/8" NPT regulator                   | 0 – 30 psig    |
| PRSS31-500 | 3/8" NPT regulator                   | 0 – 100 psig   |
| PRSS31-600 | 3/8" NPT regulator                   | 2 – 150 psig   |
| PFRS21-200 | 1/4" NPT filter/regulator            | 0 – 60 psig    |
| PFRS21-400 | 1/4" NPT filter/regulator            | 0 – 30 psig    |
| PFRS21-500 | 1/4" NPT filter/regulator            | 0 – 100 psig   |
| PFRS21-600 | 1/4" NPT filter/regulator            | 2 – 150 psig   |
| PFRS31-200 | 3/8" NPT filter/regulator            | 0 – 60 psig    |
| PFRS31-400 | 3/8" NPT filter/regulator            | 0 – 30 psig    |
| PFRS31-500 | 3/8" NPT filter/regulator            | 0 – 100 psig   |
| PFRS31-600 | 3/8" NPT filter/regulator            | 2 – 150 psig   |
| 104267     | 316 Stainless steel mounting bracket |                |
| 104268     | 5 Micron filter element              |                |
| 104269     | 40 Micron filter element             |                |



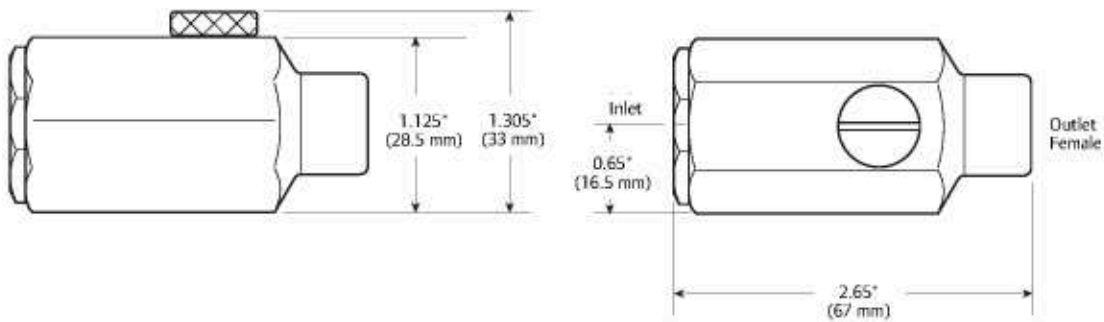
## Inline Series Lubricators

1/4", 3/8", 1/2", and 3/4" Ports

| Technical data        |   |
|-----------------------|---|
| Flow capacity*        | 1/4" — 36.0 cfm (17.0 dm <sup>3</sup> /s) |
| Flow capacity*        | 3/8" — 38.1 cfm (18.0 dm <sup>3</sup> /s) |
| Operating temperature | 32° – 150° F<br>(0° – 65.5° C)            |
| Max supply pressure   | 200 psig (13.8 bar)                       |
| Useful retention**    | 0.25 oz (7.4 cm <sup>3</sup> )            |
| Port size             | NPT / BSPT-Rc — 1/4", 3/8"                |
| Weight                | 0.2 lb (0.1 kg)                           |

\*Inlet pressure of 150 psig (10.3 bar). Pressure drop of 5 psid (0.3 bar).

\*\*Useful retention refers to usable volume.

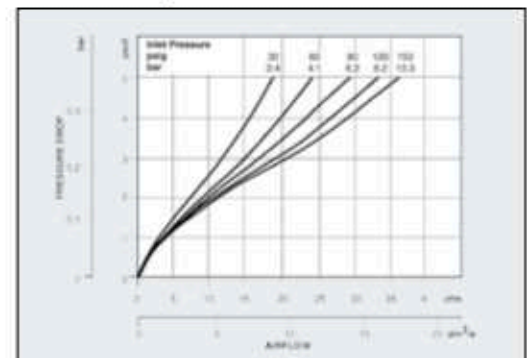


### Features

Inline lubricators assure proper lubrication for small pneumatic hand tools. These inline lubricators put the oil source right at the tool. Oil capacity is 1/4 oz. (1 ml); enough to last through an average eight-hour shift. This lubricator requires cyclical or intermittent airflow for proper operation, and consequently works best when installed at the tool inlet or on a short hose near the tool. The L01 cannot be filled under pressure.

| Port size<br>NPT          | Airflow<br>cfm | Bowl size<br>(oz) | Weight<br>lb | Model<br>Number |
|---------------------------|----------------|-------------------|--------------|-----------------|
| <b>INLINE LUBRICATORS</b> |                |                   |              |                 |
| 1/4"                      | 36             | 0.25              | 0.2          | L01-02-000      |
| 3/8"                      | 38.1           | 0.25              | 0.2          | L01-03-000      |
| 1/2"                      | 30             | 3                 | 0.875        | 3LUB8           |
| 3/4"                      | 45             | 5                 | 1.5          | 6LUB12          |
| 3/4"                      | 80             | 8                 | 2            | 8LUB12          |

### Pressure drop test



# Accessories

## Modular threaded lockout valve

Meets OSHA regulation 1910.147. This valve provides a safety lockout to prevent accidental machine start-up. When the slider is shifted into the lockout position, inlet air is blocked and downstream air is exhausted to atmosphere. The slider contains a hole that enables the user to attach a lock to the unit, preventing accidental shifting. The lockout valve is modular and can be connected via the modular clamp spacers, or threaded pipe. Order modular clamps separately.



104390-1



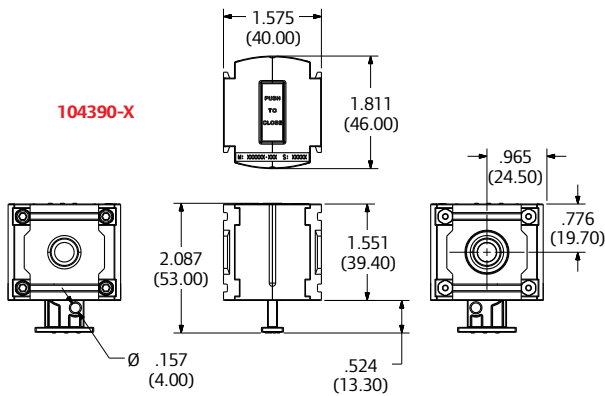
104391-2



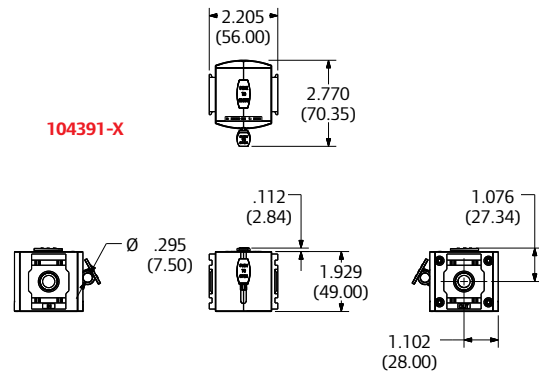
104392-3



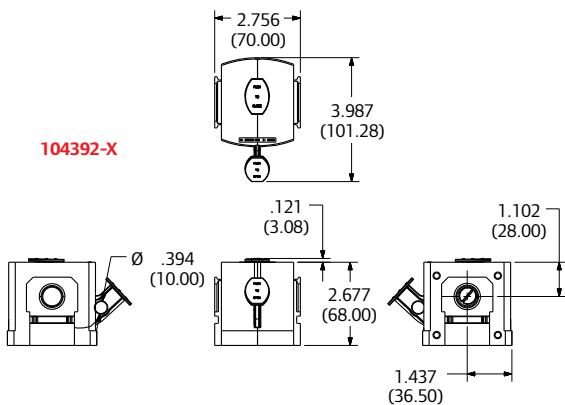
104393-5



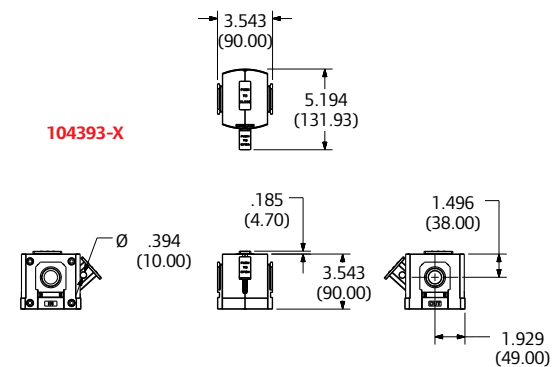
104390-X



104391-X



104392-X



104393-X

| Model number | Size        | Material               | Port size  | Description   |
|--------------|-------------|------------------------|------------|---------------|
| 104390-1     | 1000 Series | Body: aluminum         | 1/8" - NPT | Lockout valve |
| 104390-2     |             |                        | 1/4" - NPT |               |
| 104390-A     |             |                        | 1/8" - BSP |               |
| 104390-B     |             |                        | 1/4" - BSP |               |
| 104391-2     | 1500 Series |                        | 1/4" - NPT |               |
| 104391-3     |             |                        | 3/8" - NPT |               |
| 104391-B     |             |                        | 1/4" - BSP |               |
| 104391-C     |             |                        | 3/8" - BSP |               |
| 104392-3     | 2000 Series | Lockout switch: acetal | 3/8" - NPT |               |
| 104392-4     |             |                        | 1/2" - NPT |               |
| 104392-C     |             |                        | 3/8" - BSP |               |
| 104392-D     |             |                        | 1/2" - BSP |               |
| 104393-5     | 3000 Series |                        | 3/4" - NPT |               |
| 104393-6     |             |                        | 1" - NPT   |               |
| 104393-E     |             |                        | 3/4" - BSP |               |
| 104393-F     |             |                        | 1" - BSP   |               |

# Accessories

## Modular check valve

The modular check valve is used to prevent downstream pressure loss. Acting as a one-way directional flow valve, this device is generally installed downstream of the regulator. The modular check valve is connected via modular clamps. Order modular clamps separately.



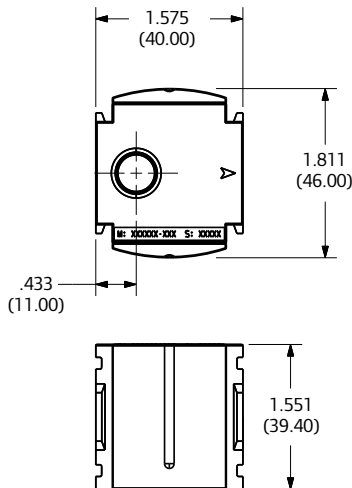
104478-2



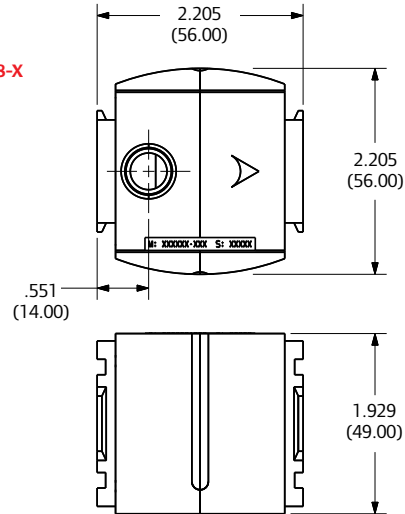
104479-3

| Model number | Size        | Material                         | Port size | Top port (NPT) | Description |
|--------------|-------------|----------------------------------|-----------|----------------|-------------|
| 104477-1     | 1000 Series | Body: aluminum<br>Seals: nitrile | 1/4"      | 1/8"           | Check valve |
| 104477-2     |             |                                  | 1/4"      | 1/4"           |             |
| 104478-1     | 1500 Series |                                  | 3/8"      | 1/8"           |             |
| 104478-2     |             |                                  | 3/8"      | 1/4"           |             |
| 104479-2     | 2000 Series |                                  | 1/2"      | 1/4"           |             |
| 104479-3     |             |                                  | 1/2"      | 3/8"           |             |

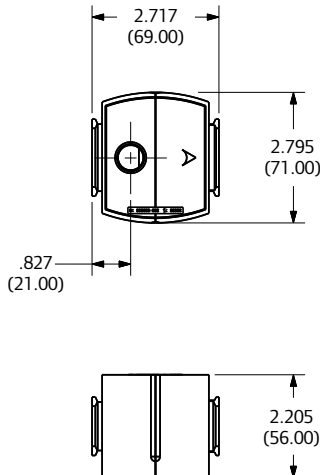
104477-X



104478-X



104479-X



### Modular clamp / spacer kit

Modular clamps are used to connect any two modular FRL units or accessories together. The kit includes both a front and a back clamp, along with the connecting bolt(s). The steel bolts are metric hex head.

| Model number | Size        | Material        | Description                |
|--------------|-------------|-----------------|----------------------------|
| 104394       | 1000 Series | Nylon           | Modular / clamp spacer kit |
| 104395       | 1500 Series | Aluminum        |                            |
| 104396       | 2000 Series | Aluminum + zinc |                            |
| 104397       | 3000 Series | Aluminum        |                            |



104394



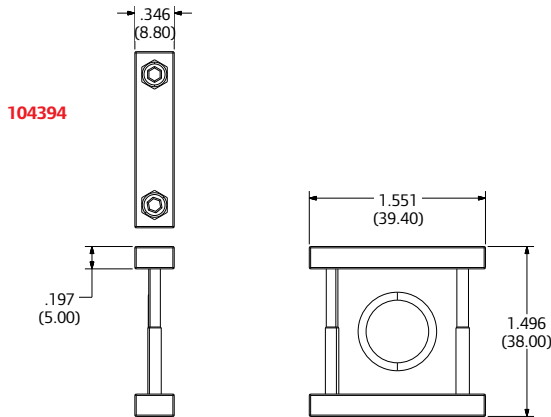
104395



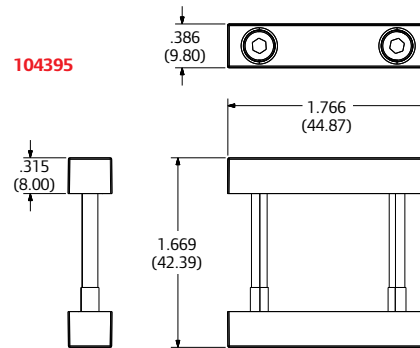
104396



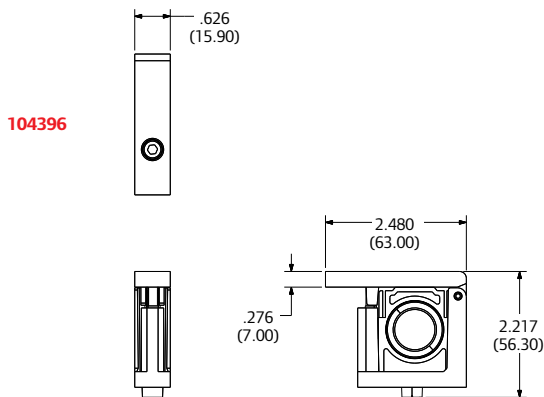
104397



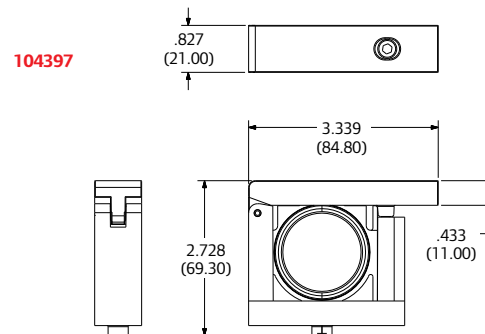
104394



104395



104396



104397



## Accessories

### T-bracket

T-brackets provide an excellent solution for wall-mounting your FRL unit. They can be used for single or combination configurations in the modular arrangement. T-type brackets give good wall-to-unit clearance for installing fittings or other connections. Kit includes bracket, modular clamp, and bolt(s).



104399



104400

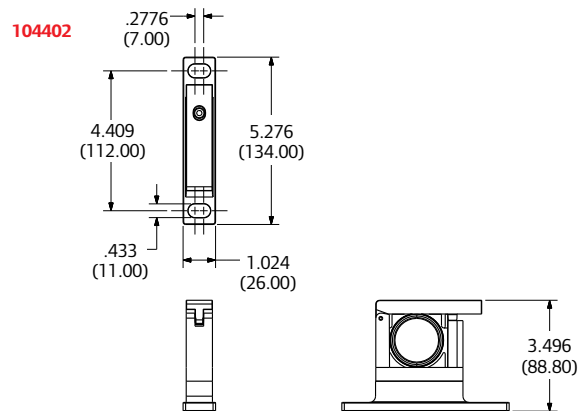
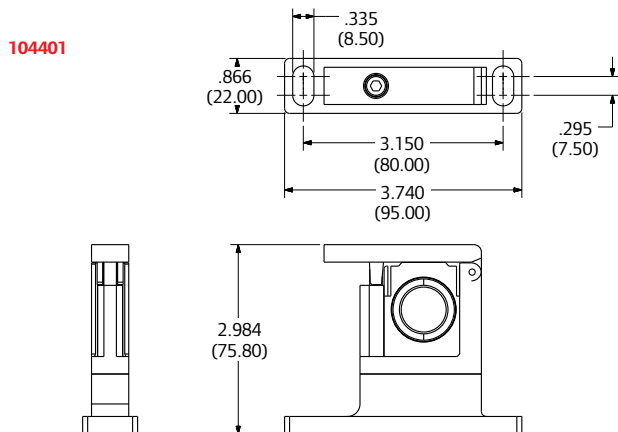
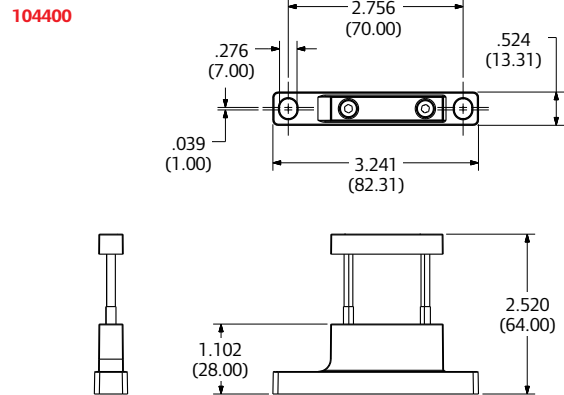
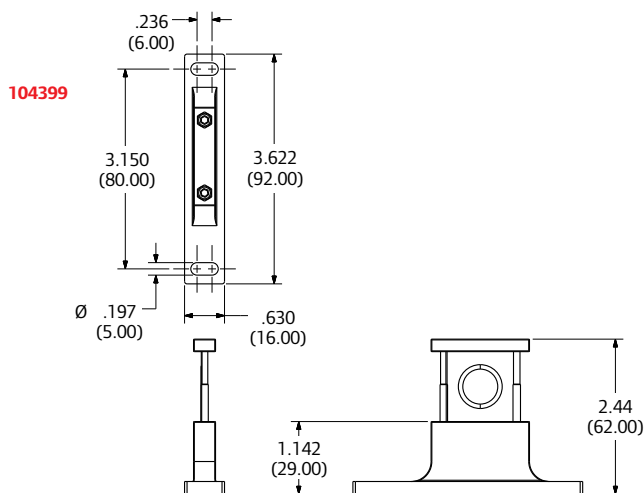


104401



104402

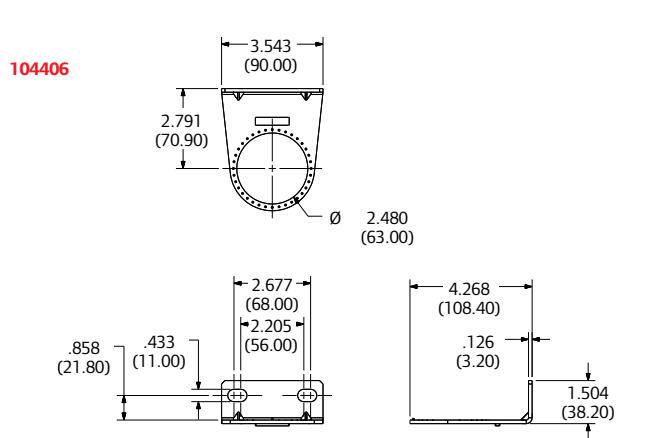
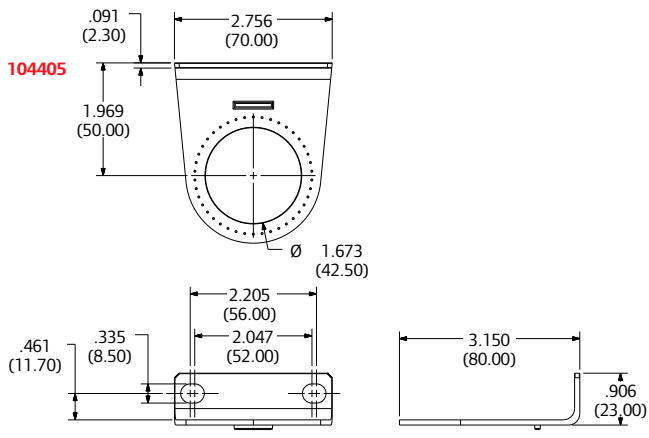
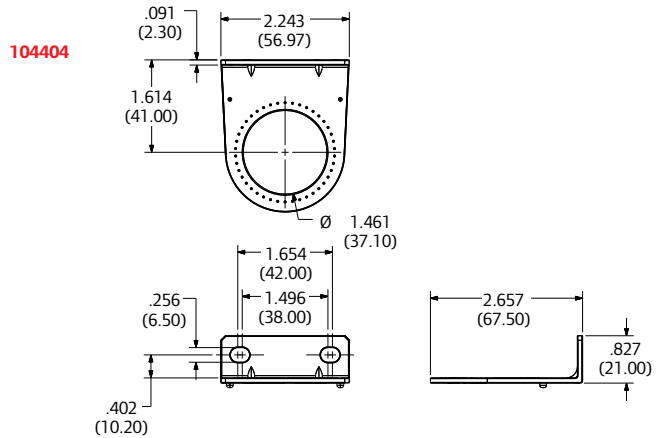
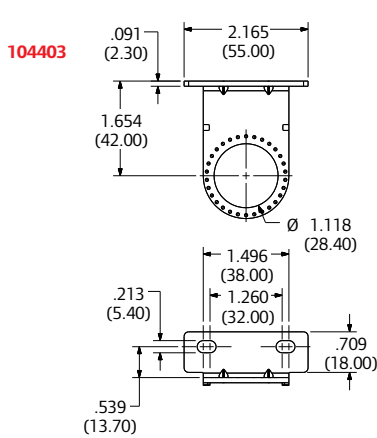
| Model number | Size        | Material | Description        |
|--------------|-------------|----------|--------------------|
| 104399       | 1000 Series | Nylon    | T-type wall mounts |
| 104400       | 1500 Series | Nylon    |                    |
| 104401       | 2000 Series | Aluminum |                    |
| 104402       | 3000 Series | Aluminum |                    |



**L-bracket**

L-brackets are designed to allow the user to mount a regulator or piggyback unit to a wall or flat surface. A panel nut should be used to keep the unit in place. Panel nuts are included as standard equipment on all ARO-Flo regulators and piggybacks, and replacements can be ordered separately.

| Model number | Size        | Material | Description         |
|--------------|-------------|----------|---------------------|
| 104403       | 1000 Series | Steel    | L-type wall bracket |
| 104404       | 1500 Series |          |                     |
| 104405       | 2000 Series |          |                     |
| 104406       | 3000 Series |          |                     |



## Accessories

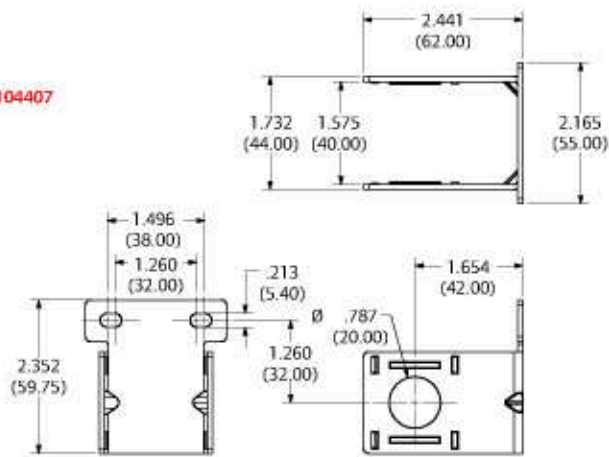
### C-bracket

C-brackets are designed to hold either a single filter or single lubricator unit. The bracket has two holes to allow for the unit to be bolted to a wall or other flat surface. Mounting hardware not included.

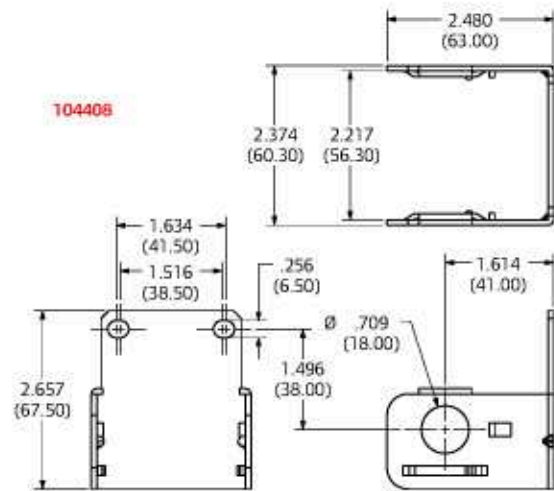


| Model number | Size        | Material | Description         |
|--------------|-------------|----------|---------------------|
| 104407       | 1000 Series | Steel    | C-type wall bracket |
| 104408       | 1500 Series |          |                     |
| 104409       | 2000 Series |          |                     |
| 104410       | 3000 Series |          |                     |

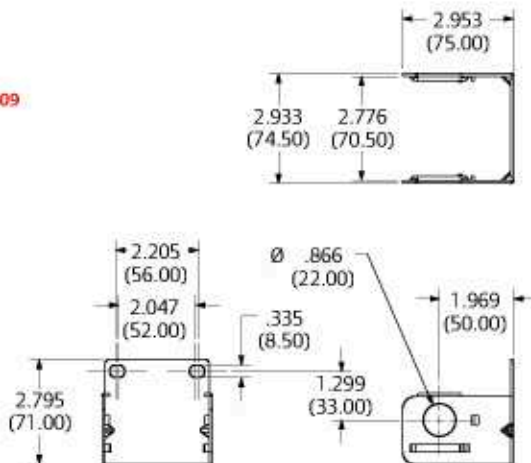
104407



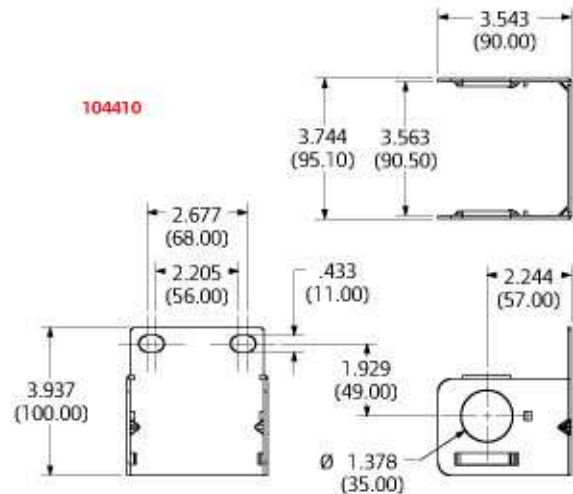
104408



104409



104410



### Modular threaded manifold block kit

Using the modular manifold block is an excellent way to provide circuit design flexibility. Normally installed downstream of the regulator, the manifold block allows clean, regulated air to be sent to signal or other equipment. The manifold blocks are offered in different port configurations to suit different application needs. Use modular clamps to attach to other components or threaded pipe. Order modular clamps separately.



104411-2-2



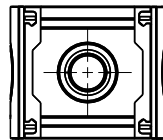
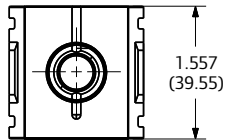
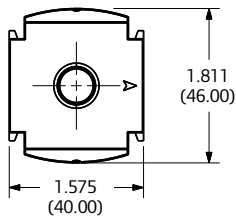
104412-3-1



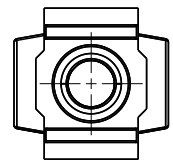
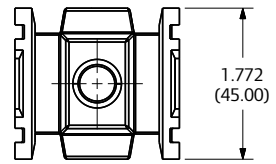
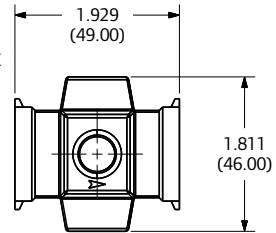
104413-3-2

| Model number | Size        | Material          | Port size   | Description        |
|--------------|-------------|-------------------|-------------|--------------------|
| 104411-1-1   | 1000 Series | Body:<br>aluminum | 1/8" x 1/8" | Manifold block kit |
| 104411-2-2   |             |                   | 1/4" x 1/4" |                    |
| 104412-2-1   | 1500 Series |                   | 1/4" x 1/8" |                    |
| 104412-2-2   |             |                   | 1/4" x 1/4" |                    |
| 104412-3-1   |             |                   | 3/8" x 1/8" |                    |
| 104412-3-2   | 2000 Series |                   | 3/8" x 1/4" |                    |
| 104413-3-2   |             |                   | 3/8" x 1/4" |                    |
| 104413-3-3   |             |                   | 3/8" x 3/8" |                    |
| 104413-4-2   |             |                   | 1/2" x 1/4" |                    |
| 104413-4-3   |             |                   | 1/2" x 3/8" |                    |

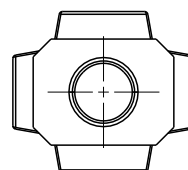
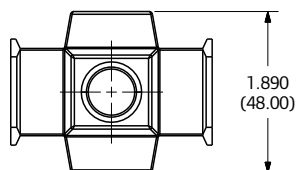
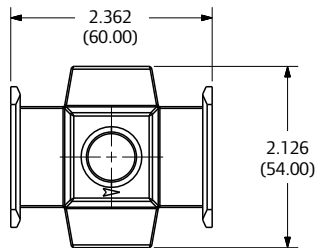
104411-X-X



104412-X-X



104413-X-X





## Accessories

### Modular threaded pipe adapter

Pipe adapter blocks allow single or multiple units to be plumbed to an air system in the modular arrangement. They allow for ease of service when removing a unit from the line, and can also allow for different pipe diameters to be used in the plumbing setup. Kit includes two pipe adapters. Order modular clamps separately.



104474-1



104475-2



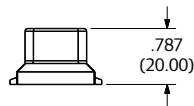
104398-3



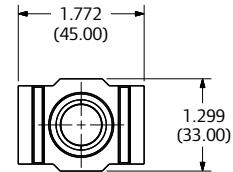
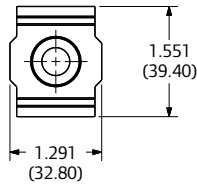
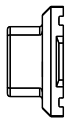
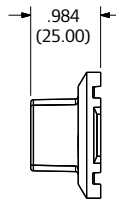
104476-5

| Model number | Size        | Material          | Port size  | Description                           |
|--------------|-------------|-------------------|------------|---------------------------------------|
| 104474-1     | 1000 Series | Body:<br>aluminum | 1/8" - NPT | Modular<br>(threaded)<br>pipe adapter |
| 104474-2     |             |                   | 1/4" - NPT |                                       |
| 104474-A     |             |                   | 1/8" - BSP |                                       |
| 104474-B     |             |                   | 1/4" - BSP |                                       |
| 104475-2     | 1500 Series |                   | 1/4" - NPT |                                       |
| 104475-3     |             |                   | 3/8" - NPT |                                       |
| 104475-B     |             |                   | 1/4" - BSP |                                       |
| 104475-C     |             |                   | 3/8" - BSP |                                       |
| 104398-3     | 2000 Series |                   | 3/8" - NPT |                                       |
| 104398-4     |             |                   | 1/2" - NPT |                                       |
| 104398-C     |             |                   | 3/8" - BSP |                                       |
| 104398-D     |             |                   | 1/2" - BSP |                                       |
| 104476-5     | 3000 Series | 3/4" - NPT        |            |                                       |
| 104476-6     |             | 1" - NPT          |            |                                       |
| 104476-E     |             | 3/4" - BSP        |            |                                       |
| 104476-F     |             | 1" - BSP          |            |                                       |

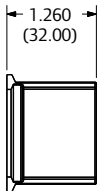
104474-X



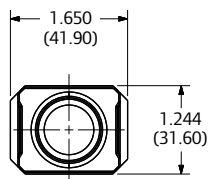
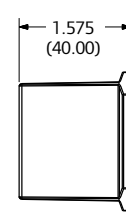
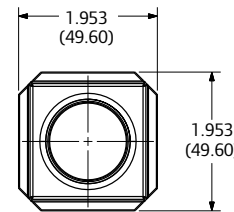
104475-X



104398-X



104476-X



## Pressure switch

The use of a pressure switch allows for the sensing of high- or low-pressure thresholds. The switch is designed to be used with the modular manifold block. The pressure switch is offered in 1/8" NPT.

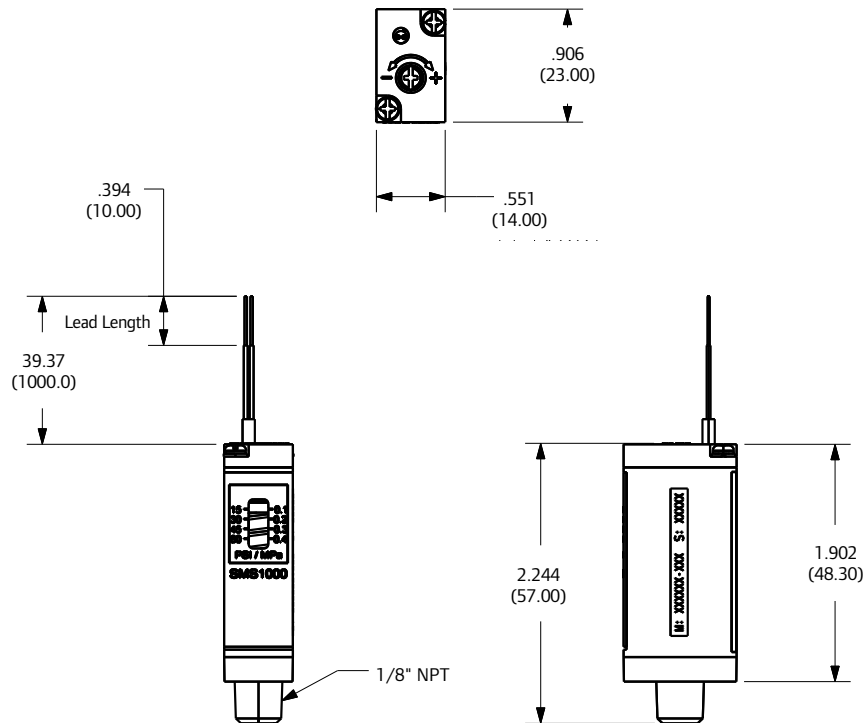
- Load voltage: DC 24
- Load current range: 5 ~ 40mA (DC 24V)
- Ambient and fluid temperature: -5° to 60°C (Non-freezing)
- Wiring: 2 wire

The switch complies with IEC (International Electrotechnical Commission) and has an IP67 rating.



104415

| Model number | Port size | Material  | Description     |
|--------------|-----------|---|-----------------|
| 104415       | 1/8"      | Bracket: zinc<br>O-ring: nitrile<br>Body: nylon | Pressure switch |



## Accessories

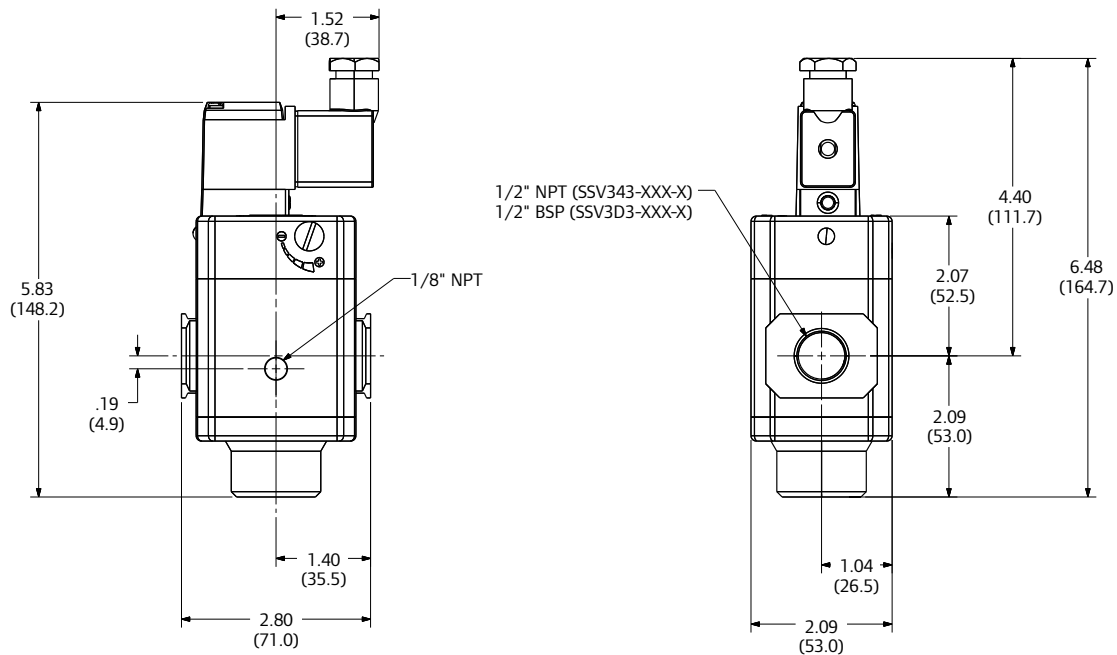
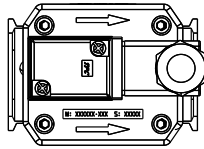
### Soft start valve

Machine system start-up and the related air surge can both damage and reduce the operating efficiency of its pneumatic components. Over time, the air surge on components takes an even heavier toll on the machine's overall productivity and on your maintenance schedule. The ARO Soft-Start Valve eliminates the surge at start-up to help protect your system.



| Model number | Description      |
|--------------|------------------|
| SSV343-024-D | 1/2" NPT, 24 DC  |
| SSV343-120-A | 1/2" NPT, 120 AC |
| SSV3D3-024-D | 1/2" BSP, 24 DC  |
| SSV3D3-120-A | 1/2" BSP, 120 AC |

| Technical data                           |   |                                       |                            |
|--|---|---------------------------------------|----------------------------|
| <b>Size</b>                              | 2000 Series, 1/2" port size   | <b>Voltage allowance</b>              | -15% ~ +10%                |
| <b>Operating pressure range</b>          | 44 - 130 psi (3 - 9 bar)  | <b>Power consumption (AC) inrush</b>  | 5.6VA (50Hz), 5.0VA (60Hz) |
| <b>Gauge Port</b>                        | 1/8"  | <b>Power consumption (AC) holding</b> | 3.3VA (50Hz), 2.3VA (60Hz) |
| <b>Max fluid and ambient temperature</b> | 122F (50C)  | <b>Power consumption (DC)</b>         | 1.8W / 2W (with lamp)      |
| <b>Effective orifice size</b>            | P->A = .098 sq in (63 mm <sup>2</sup> ),<br>A->R = .068 sq in (44 mm <sup>2</sup> ) | <b>Electrical connection</b>          | Din connector              |
| <b>Voltage options</b>                   | 120AC, 24DC   | <b>Manual override</b>                | Locking                    |



### Add-on gauges

| Model  | Port | Range (psi) | Size | Case    | Lens          |
|--------|------|-------------|------|---------|---------------|
| 104491 | 1/8" | 0 - 45      | 1.5" | Plastic | Polycarbonate |
| 104488 | 1/8" | 0 - 45      | 1.5" | Steel   | Glass         |
| 104498 | 1/8" | 0 - 45      | 2"   | Plastic | Polycarbonate |
| 104494 | 1/8" | 0 - 45      | 2"   | Steel   | Glass         |
| 104492 | 1/8" | 0 - 75      | 1.5" | Plastic | Polycarbonate |
| 104489 | 1/8" | 0 - 75      | 1.5" | Steel   | Glass         |
| 104499 | 1/8" | 0 - 75      | 2"   | Plastic | Polycarbonate |
| 104495 | 1/8" | 0 - 75      | 2"   | Steel   | Glass         |
| 104493 | 1/8" | 0 - 160     | 1.5" | Plastic | Polycarbonate |
| 104490 | 1/8" | 0 - 160     | 1.5" | Steel   | Glass         |
| 104500 | 1/8" | 0 - 160     | 2"   | Plastic | Polycarbonate |
| 104496 | 1/8" | 0 - 160     | 2"   | Steel   | Glass         |
| 104504 | 1/4" | 0 - 160     | 2"   | Plastic | Polycarbonate |
| 104502 | 1/4" | 0 - 160     | 2"   | Steel   | Glass         |
| 104501 | 1/8" | 0 - 250     | 2"   | Plastic | Polycarbonate |
| 104497 | 1/8" | 0 - 250     | 2"   | Steel   | Glass         |
| 104505 | 1/4" | 0 - 250     | 2"   | Plastic | Polycarbonate |
| 104503 | 1/4" | 0 - 250     | 2"   | Steel   | Glass         |



104494



104495



104502



104503



# Accessories

## Gauges and port blocks

In the absence of the standard integral gauge, a gauge port block can be used with a screw-in aftermarket gauge. All regulators, piggybacks, and combo units ordered without a gauge will come with a gauge port block supplied as standard. All port blocks are 1/8" NPT.



| Model number | Size             | Material                     | Description                   |
|--------------|------------------|------------------------------|-------------------------------|
| 104467       | 1000/1500 Series | Body: nylon<br>Thread: steel | Gauge port block              |
| 104469       | 2000/3000 Series |                              |                               |
| 104310       | 1000/1500 Series | Lens: poly                   | Flush-mount gauge (0-140 psi) |
| 104334       | 2000/3000 Series |                              |                               |

## Lubricating oil

ARO lubricating oil is recommended for use with pneumatic power tools, motors, valves, cylinders, and hoists. It is specially formulated for use in air line lubricators. Proper, regular lubrication helps ensure longer, trouble-free operation by reducing wear; saves power, and cuts equipment maintenance costs.

ARO lubricating oil is available in 1-quart containers, and may be ordered by specifying part number 29665 ([1] 1-quart container).

**NOTE:** There are (12) 1-quart containers per case.

- Viscosity:** 100-200 S.S.U. @ 100°F (38°C) min. aniline point of 200°F (93°C)
- Class:** II Lubricant
- Approx. SAE No:** Light SAE 10, non-detergent



29665

## Air tool oils

| Model    | Description   | Size   |
|----------|---|--------|
| 63Z4     | #63 oil for cyclone wick lubrication  | 4 oz   |
| 10Z4     | Class 1 #10 oils for use with percussive, assembly, and impact wrenches                 | 4 oz   |
| 10G      | Class 1 #10 oils for use with percussive, assembly, and impact wrenches                 | 1 gal  |
| 10P      | Class 1 #10 oils for use with percussive, assembly, and impact wrenches                 | 1 pt   |
| 10G55    | Class 1 #10 oils for use with percussive, assembly, and impact wrenches                 | 55 gal |
| 10GW     | Class 1 #10 oil / antifreeze for use with percussive, assembly, and impact wrenches     | 1 gal  |
| 50P      | Class II lubricant, #50 oil for use with grinders, impact wrenches, hoists, and winches | 1 pt   |
| 50G      | Class II lubricant, #50 oil for use with grinders, impact wrenches, hoists, and winches | 1 gal  |
| 62 1 Gal | Class II #62 oil for hoist and winch gear boxes   | 1 gal  |



10Z4

10G

10P

## Panel nut

The panel nut allows the user to attach the regulator or piggyback unit to a panel or L-bracket. Panel nuts are included as standard on all ARO-Flo Series regulators and piggybacks.



104416

104417

104418

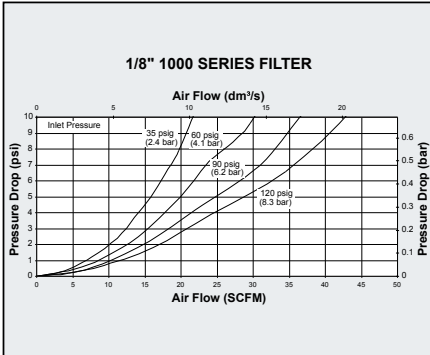
104419

| Model number | Size        | Material | Description |
|--------------|-------------|----------|-------------|
| 104416       | 1000 Series | Nylon    | Panel nut   |
| 104417       | 1500 Series |          |             |
| 104418       | 2000 Series |          |             |
| 104419       | 3000 Series |          |             |

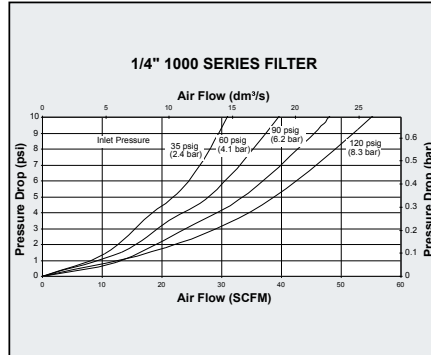
# Flow charts

## Filters

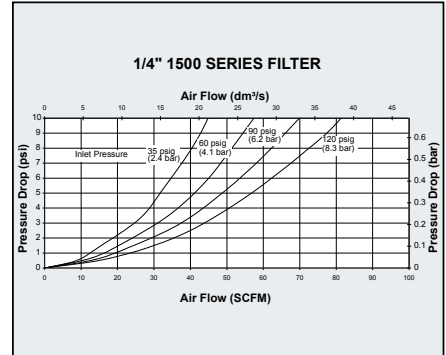
**1000 Series**  
1/8" Pressure drop test



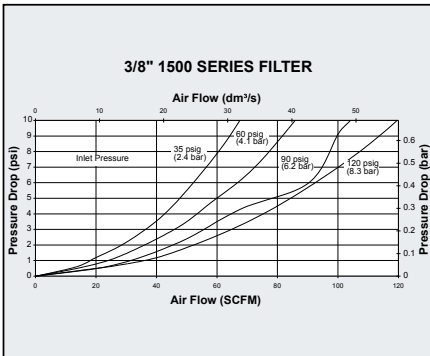
**1000 Series**  
1/4" Pressure drop test



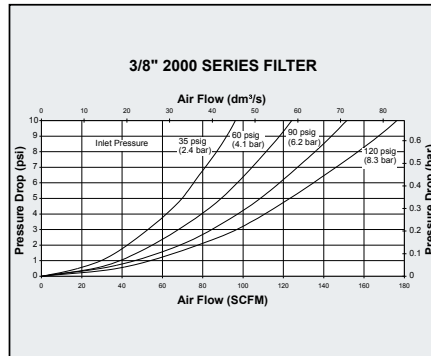
**1500 Series**  
1/4" Pressure drop test



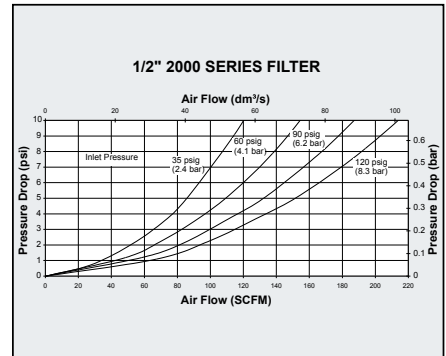
**1500 Series**  
3/8" Pressure drop test



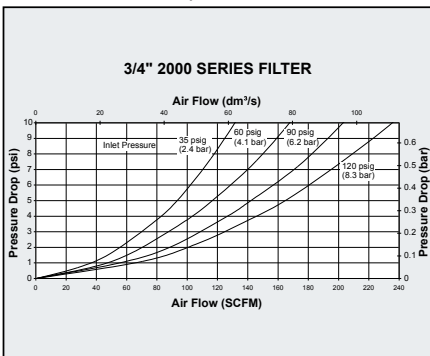
**2000 Series**  
3/8" Pressure drop test



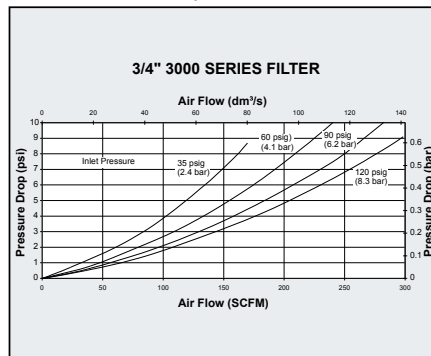
**2000 Series**  
1/2" Pressure drop test



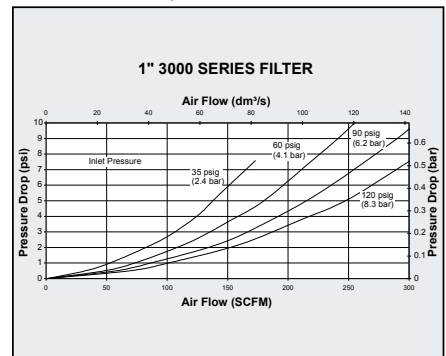
**2000 Series**  
3/4" Pressure drop test



**3000 Series**  
3/4" Pressure drop test



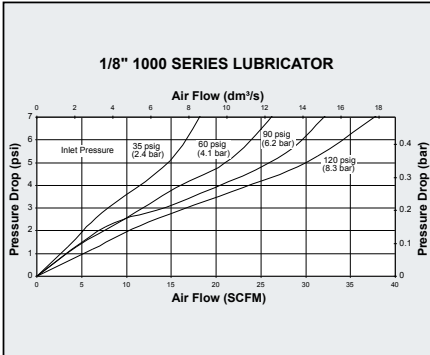
**3000 Series**  
1" Pressure drop test



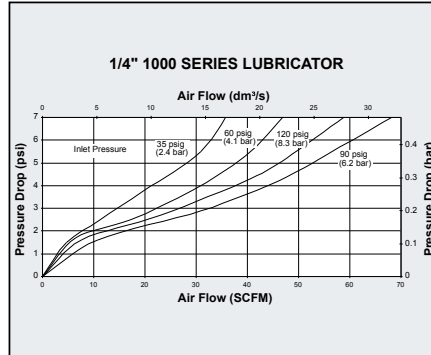


# Lubricators

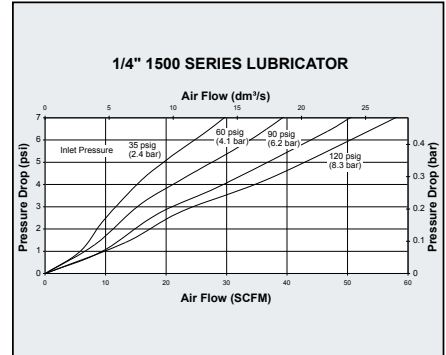
**1000 Series**  
1/8" Pressure drop test



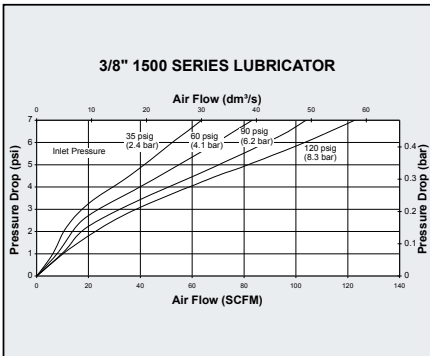
**1000 Series**  
1/4" Pressure drop test



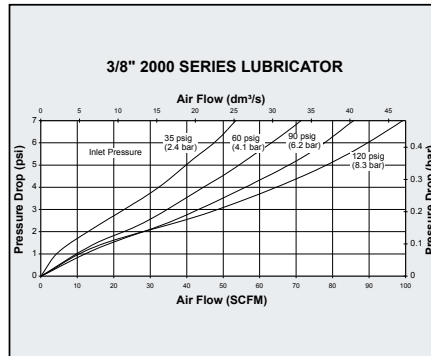
**1500 Series**  
1/4" Pressure drop test



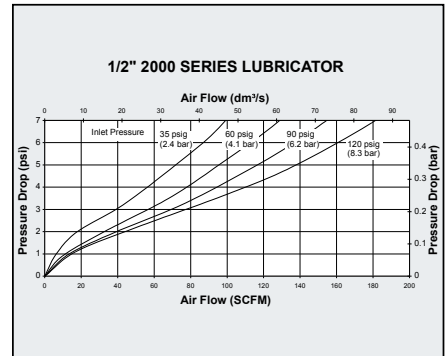
**1500 Series**  
3/8" Pressure drop test



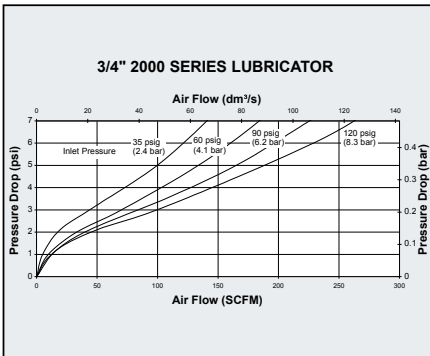
**2000 Series**  
3/8" Pressure drop test



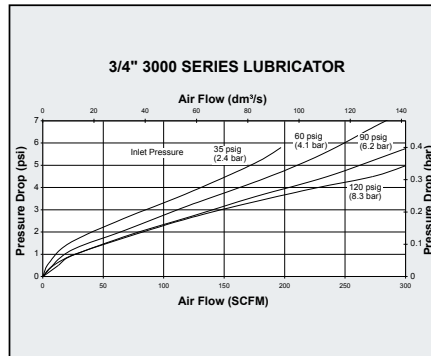
**2000 Series**  
1/2" Pressure drop test



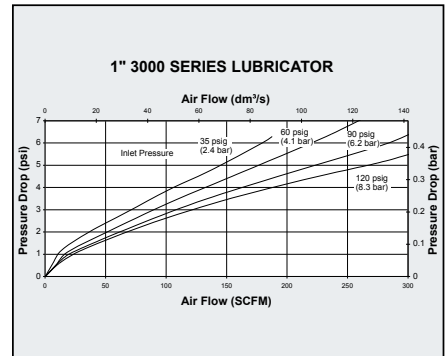
**2000 Series**  
3/4" Pressure drop test



**3000 Series**  
3/4" Pressure drop test



**3000 Series**  
1" Pressure drop test

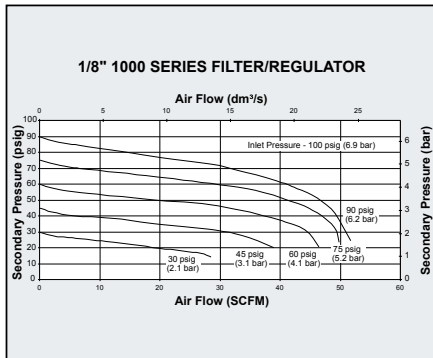




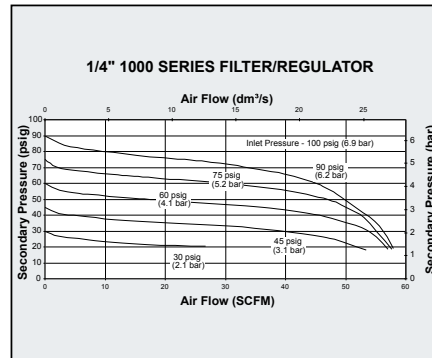
# Flow charts

## Piggyback Filters / Regulators

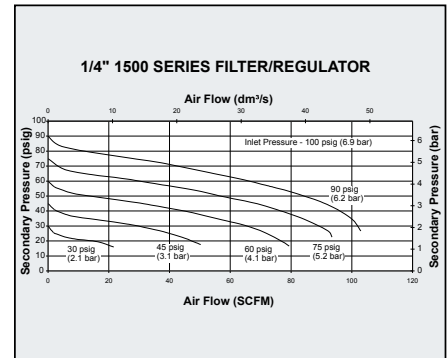
**1000 Series**  
1/8" Pressure drop test



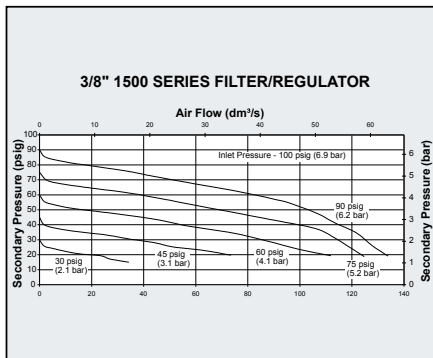
**1000 Series**  
1/4" Pressure drop test



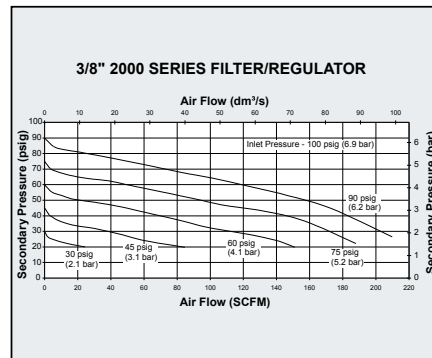
**1500 Series**  
1/4" Pressure drop test



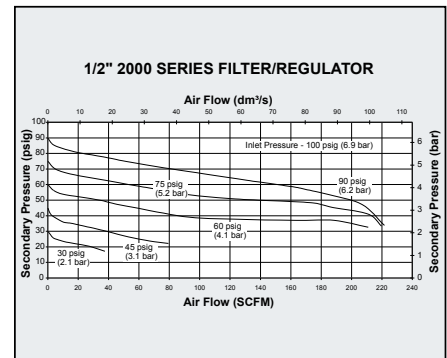
**1500 Series**  
3/8" Pressure drop test



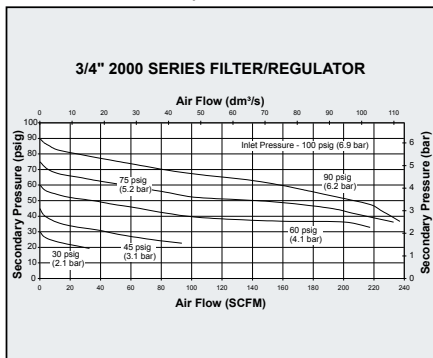
**2000 Series**  
3/8" Pressure drop test



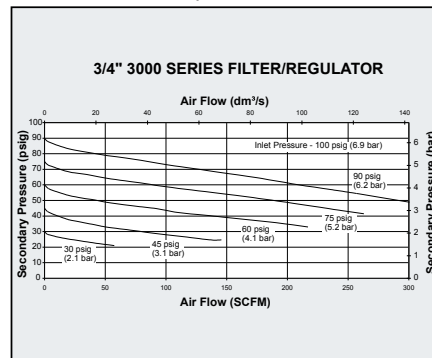
**2000 Series**  
1/2" Pressure drop test



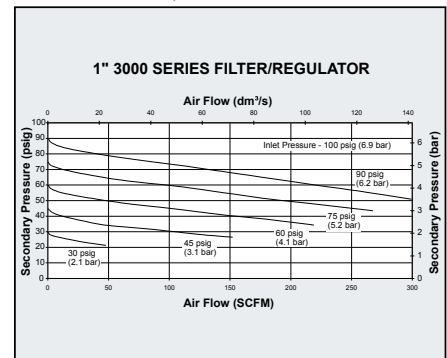
**2000 Series**  
3/4" Pressure drop test



**3000 Series**  
3/4" Pressure drop test

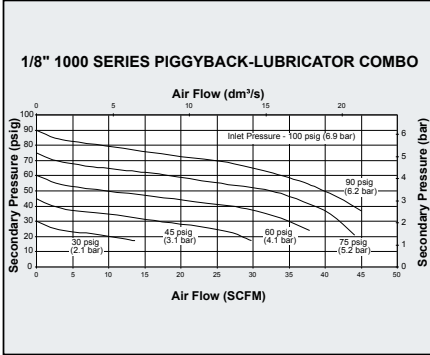


**3000 Series**  
1" Pressure drop test

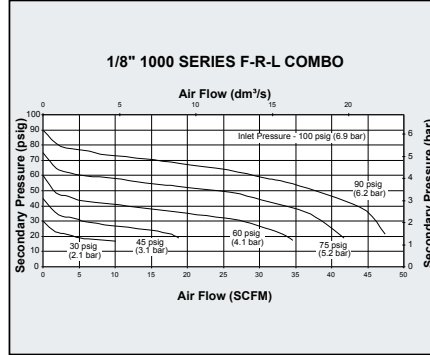


# Combinations

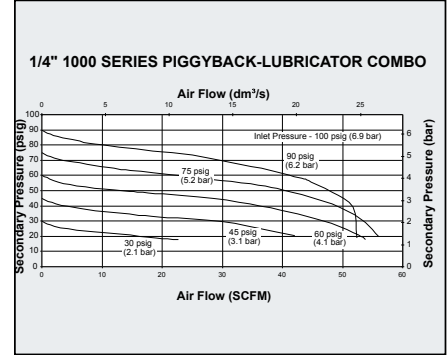
**1000 Series**  
1/8" Pressure drop test



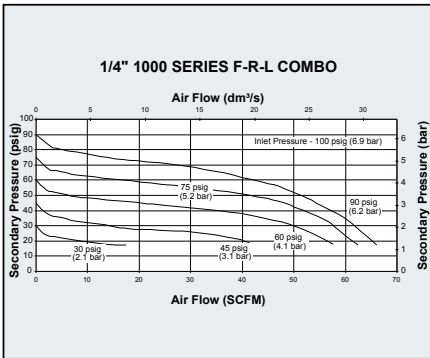
**1000 Series**  
1/8" Pressure drop test



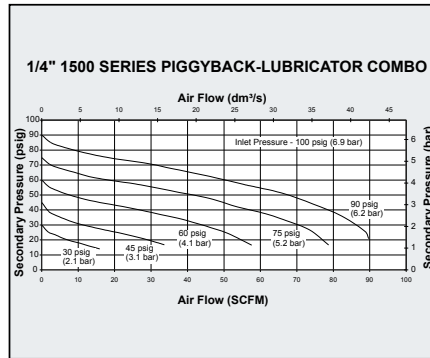
**1000 Series**  
1/4" Pressure drop test



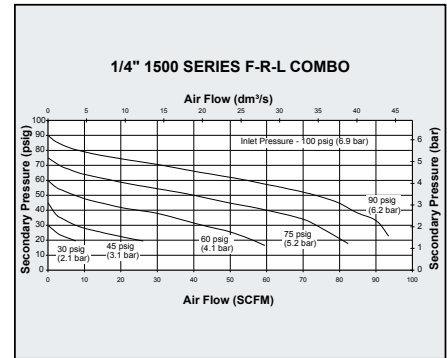
**1000 Series**  
1/4" Pressure drop test



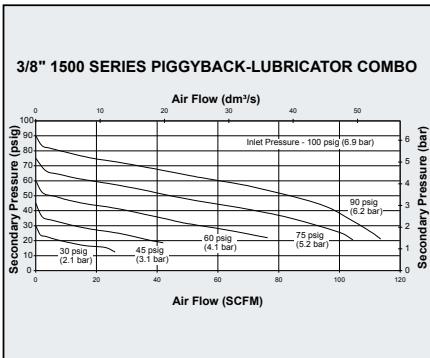
**1500 Series**  
1/4" Pressure drop test



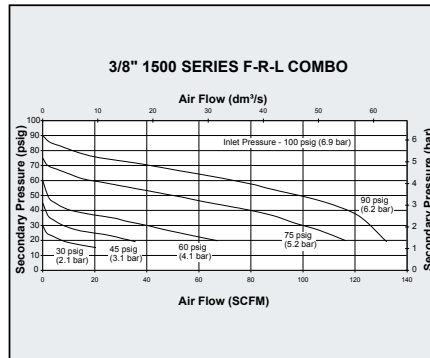
**1500 Series**  
1/4" Pressure drop test



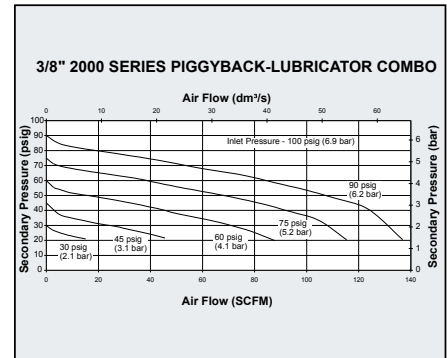
**1500 Series**  
3/8" Pressure drop test



**1500 Series**  
3/8" Pressure drop test



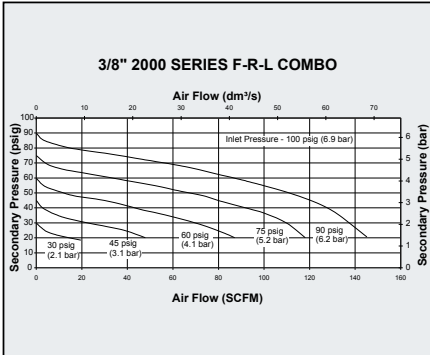
**2000 Series**  
3/8" Pressure drop test



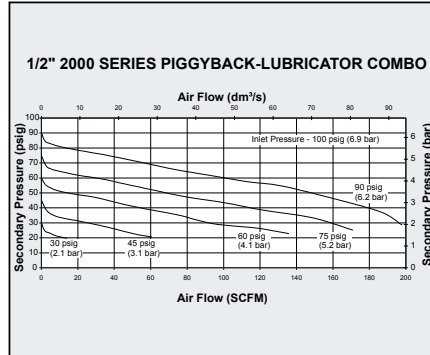
# Flow charts

## Combinations

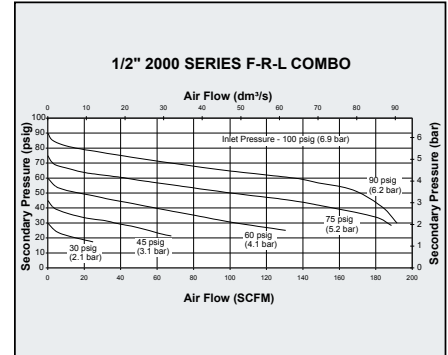
**2000 Series**  
3/8" Pressure drop test



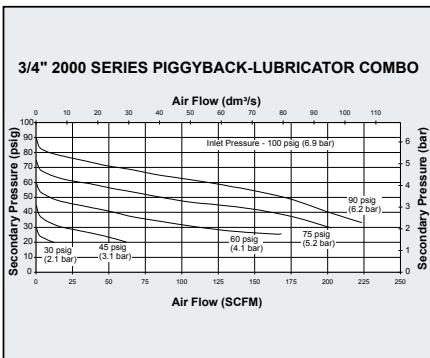
**2000 Series**  
1/2" Pressure drop test



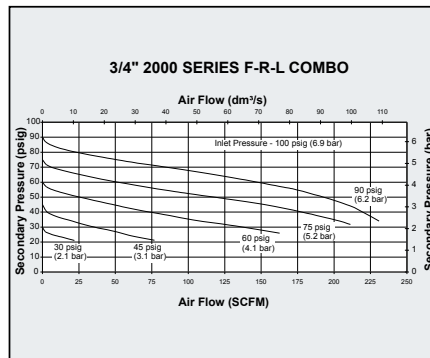
**2000 Series**  
1/2" Pressure drop test



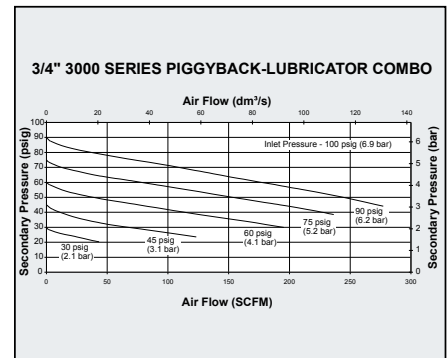
**2000 Series**  
3/4" Pressure drop test



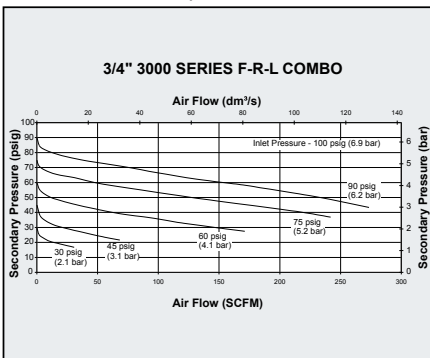
**2000 Series**  
3/4" Pressure drop test



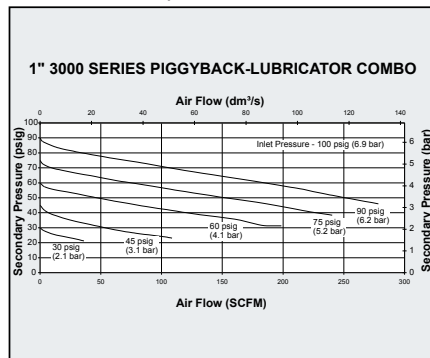
**3000 Series**  
3/4" Pressure drop test



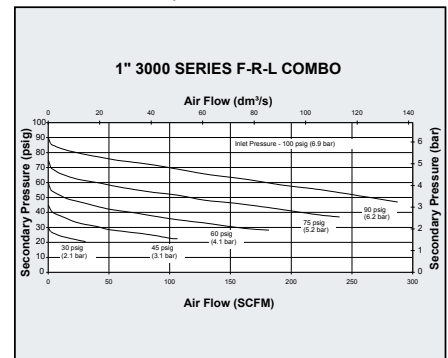
**3000 Series**  
3/4" Pressure drop test



**3000 Series**  
1" Pressure drop test



**3000 Series**  
1" Pressure drop test



# Index

## Models

| NUMBER     | DESCRIPTION                   | PAGE      |
|------------|-------------------------------|-----------|
| 3LUB8      | 1/2" Inline Lubricator        | 64        |
| 6LUB12     | 3/4" Inline Lubricator        | 64        |
| 8LUB12     | 3/4" Inline Lubricator        | 64        |
| B271X2-XXX | Brass Regulator               | 56, 57    |
| C381X1-6XX | Filter/Regulator-Lubricator   | 16, 17    |
| C381X1-8XX | FRL                           | 16, 17    |
| C382X1-6XX | Filter/Regulator-Lubricator   | 26, 27    |
| C382X1-8XX | FRL                           | 26, 27    |
| C383X1-6XX | Filter/Regulator-Lubricator   | 36, 37    |
| C383X1-8XX | FRL                           | 36, 37    |
| C384X1-8XX | FRL                           | 46, 47    |
| C384X1-6XX | Filter/Regulator-Lubricator   | 46, 47    |
| F35111-XXX | 1/8" Filter                   | 8, 9      |
| F35121-XXX | 1/4" Filter                   | 8, 9      |
| F35221-XXX | 1/4" Filter                   | 18, 19    |
| F35231-XXX | 3/8" Filter                   | 18, 19    |
| F3533X-XXX | 3/8" Filter                   | 28, 29    |
| F3534X-XXX | 1/2" Filter                   | 28, 29    |
| F3535X-XXX | 3/4" Filter                   | 28, 29    |
| F3545X-XXX | 3/4" Filter                   | 38, 39    |
| F3546X-XXX | 1" Filter                     | 38, 39    |
| F35501-31X | 3" Coalescing Filter          | 50, 51    |
| F35561-31X | 1" Coalescing Filter          | 50, 51    |
| F35561-41X | 1" Filter                     | 48, 49    |
| F35571-31X | 1-1/4" Coalescing Filter      | 50, 51    |
| F35571-41X | 1-1/4" Filter                 | 48, 49    |
| F35581-31X | 1-1/2" Coalescing Filter      | 50, 51    |
| F35581-41X | 1-1/2" Filter                 | 48, 49    |
| F35591-31X | 2" Coalescing Filter          | 50, 51    |
| F35591-41X | 2" Filter                     | 48, 49    |
| L01-XX-XXX | Inline Lubricator             | 64        |
| L36111-XXX | 1/8" Lubricator               | 12, 13    |
| L36121-XXX | 1/4" Lubricator               | 12, 13    |
| L36221-XXX | 1/4" Lubricator               | 22, 23    |
| L36231-XXX | 3/8" Lubricator               | 22, 23    |
| L36331-XXX | 3/8" Lubricator               | 32, 33    |
| L36341-XXX | 1/2" Lubricator               | 32, 33    |
| L36351-XXX | 3/4" Lubricator               | 32, 33    |
| L36451-XXX | 3/4" Lubricator               | 42, 43    |
| L36461-XXX | 1" Lubricator                 | 42, 43    |
| L36561-1XX | 1" Lubricator                 | 54, 55    |
| L36571-1XX | 1-1/4" Lubricator             | 54, 55    |
| L36581-1XX | 1-1/2" Lubricator             | 54, 55    |
| L36591-1XX | 2" Lubricator                 | 54, 55    |
| P3922X-XXX | 1/4" Filter/Regulator         | 24, 25    |
| P3923X-XXX | 3/8" Filter/Regulator         | 24, 25    |
| P3933X-XXX | 3/8" Filter/Regulator         | 34, 35    |
| P3934X-XXX | 1/2" Filter/Regulator         | 34, 35    |
| P3935X-XXX | 3/4" Filter/Regulator         | 34, 35    |
| P3945X-XXX | 3/4" Filter/Regulator         | 44, 45    |
| P3946X-XXX | 1" Filter/Regulator           | 44, 45    |
| P3911X-XXX | 1/8" Filter/Regulator         | 14, 15    |
| P3912X-XXX | 1/4" Filter/Regulator         | 14, 15    |
| PFR5XX-XXX | SS Precision Filter/Regulator | 62, 63    |
| PR4033-XXX | 3/8" Precision Regulator      | 60, 61    |
| PR4044-XXX | 1/2" Precision Regulator      | 60, 61    |
| PR4055-XXX | 3/4" Precision Regulator      | 60, 61    |
| PR40X1-XXX | Precision Regulator           | 58, 59    |
| PR55XX-XXX | SS Precision Regulator        | 62, 63    |
| R37111-XXX | 1/8" Regulator                | 10, 11    |
| R37121-XXX | 1/4" Regulator                | 3, 10, 11 |
| R37221-XXX | 1/4" Regulator                | 20, 21    |
| R37231-XXX | 3/8" Regulator                | 20, 21    |
| R37331-XXX | 3/8" Regulator                | 30, 31    |
| R37341-XXX | 1/2" Regulator                | 30, 31    |
| R37351-XXX | 3/4" Regulator                | 30, 31    |
| R37451-XXX | 3/4" Regulator                | 40, 41    |
| R37461-XXX | 1" Regulator                  | 40, 41    |
| R37561-XXX | 1" Regulator                  | 52, 53    |
| R37571-XXX | 1-1/4" Regulator              | 52, 53    |
| R37581-XXX | 1-1/2" Regulator              | 52, 53    |
| R37591-XXX | 2" Regulator                  | 52, 53    |

## Accessories

| NUMBER | DESCRIPTION              | PAGE           |
|--------|--------------------------|----------------|
| 29077  | Wall Mount Bracket       | 59             |
| 29665  | Air Line Oil             | 5, 76          |
| 29668  | Mounting Bracket         | 56, 57         |
| 29850  | 0 - 160 psi Gauge        | 57             |
| 104039 | Stud Mount               | 56, 57         |
| 104094 | Panel Nut                | 56, 57         |
| 104267 | 316 SS Mounting Bracket  | 63             |
| 104271 | Mounting Bracket         | 61             |
| 104394 | Modular Clamp/Spacer Kit | 9, 11, 13, 67  |
| 104395 | Modular Clamp/Spacer Kit | 19, 21, 23, 67 |
| 104396 | Modular Clamp/Spacer Kit | 29, 31, 33, 67 |
| 104397 | Modular Clamp/Spacer Kit | 39, 41, 43, 67 |
| 104399 | T-type Wall Mount        | 9, 11, 13, 68  |

|            |                                 |                   |
|------------|---------------------------------|-------------------|
| 104400     | T-type Wall Mount               | 19, 21, 23, 68    |
| 104401     | T-type Wall Mount               | 29, 31, 33, 68    |
| 104402     | L-type Wall Mount               | 39, 41, 43, 68    |
| 104403     | L-type Wall Mount               | 9, 11, 13, 69     |
| 104404     | L-type Wall Mount               | 19, 21, 23, 69    |
| 104405     | L-type Wall Mount               | 29, 31, 33, 69    |
| 104406     | L-type Wall Mount               | 39, 41, 43, 69    |
| 104407     | C-type Wall Mount               | 9, 11, 13, 70     |
| 104408     | C-type Wall Mount               | 19, 21, 23, 70    |
| 104409     | C-type Wall Mount               | 4, 29, 31, 33, 70 |
| 104410     | C-type Wall Mount               | 39, 41, 43, 70    |
| 104415     | Pressure Switch                 | 4, 31, 73         |
| 104416     | Panel Nut                       | 11, 76            |
| 104417     | Panel Nut                       | 21, 76            |
| 104418     | Panel Nut                       | 31, 76            |
| 104419     | Panel Nut                       | 41, 76            |
| 104467     | Gauge Port Block                | 11, 21, 76        |
| 104469     | Gauge Port Block                | 31, 41, 76        |
| 104488     | 0 - 45 psi Gauge                | 75                |
| 104489     | 0 - 75 psi Gauge                | 75                |
| 104490     | 0 - 160 psi Gauge               | 75                |
| 104491     | 0 - 45 psi Gauge                | 75                |
| 104492     | 0 - 75 psi Gauge                | 75                |
| 104493     | 0 - 160 psi Gauge               | 75                |
| 104494     | 0 - 45 psi Gauge                | 75                |
| 104495     | 0 - 75 psi Gauge                | 75                |
| 104496     | 0 - 160 psi Gauge               | 75                |
| 104497     | 0 - 250 psi Gauge               | 75                |
| 104498     | 0 - 45 psi Gauge                | 75                |
| 104499     | 0 - 75 psi Gauge                | 75                |
| 104500     | 0 - 160 psi Gauge               | 75                |
| 104501     | 0 - 250 psi Gauge               | 75                |
| 104502     | 0 - 160 psi Gauge               | 53, 75            |
| 104503     | 0 - 250 psi Gauge               | 53, 75            |
| 104504     | 0 - 160 psi Gauge               | 53, 75            |
| 104505     | 0 - 250 psi Gauge               | 53, 75            |
| 104511     | Pressure Differential Indicator | 49, 51            |
| 104512     | Wall Mount Pipe Clamp           | 49, 51, 55        |
| 104517     | Wall Mount Pipe Clamp           | 53                |
| 104526     | Force Fill Adapter              | 55                |
| 104530     | Force Fill Adapter              | 55                |
| 104531     | Air line Oil, Class II #50      | 55                |
| 104532     | Air line Oil, Class II #62      | 55                |
| 104390-X   | Lock-out Valve                  | 9, 11, 13, 65     |
| 104391-X   | Lock-out Valve                  | 19, 21, 23, 65    |
| 104392-X   | Lock-out Valve                  | 29, 31, 33, 65    |
| 104393-X   | Lock-out Valve                  | 39, 41, 43, 65    |
| 104398-X   | Pipe Adapter                    | 29, 31, 33, 72    |
| 104411-X-X | Manifold Block                  | 9, 11, 13, 71     |
| 104412-X-X | Manifold Block                  | 19, 21, 23, 71    |
| 104413-X-X | Manifold Block                  | 5, 29, 31, 33, 71 |
| 104474-X   | Pipe Adapter                    | 9, 11, 13, 72     |
| 104475-X   | Pipe Adapter                    | 19, 21, 23, 72    |
| 104476-X   | Pipe Adapter                    | 39, 41, 43, 72    |
| 104477-X   | Check Valve                     | 9, 11, 13, 66     |
| 104478-X   | Check Valve                     | 19, 21, 23, 66    |
| 104479-X   | Check Valve                     | 29, 31, 33, 66    |
| 10G        | Class I #10 Oil                 | 76                |
| 10G55      | Class I #10 Oil                 | 76                |
| 10GW       | Class I #10 Oil/Antifreeze      | 76                |
| 10P        | Class I #10 Oil                 | 76                |
| 10Z4       | Class I #10 Oil                 | 76                |
| 50G        | Class II #50 Oil                | 76                |
| 50P        | Class II #50 Oil                | 76                |
| 62 1 Gal   | Class II #62 Oil                | 76                |
| 63Z4       | #63 Oil                         | 76                |
| SSV3XXXXXX | Soft Start Valve                | 74                |

## Service Kits/ Replacement Parts

| NUMBER | DESCRIPTION                           | PAGE                       |
|--------|---------------------------------------|----------------------------|
| 104268 | SS 5-Micron Element                   | 63                         |
| 104269 | SS 40-Micron Element                  | 63                         |
| 104270 | Service Kit                           | 61                         |
| 104293 | Auto Drain                            | 9, 15, 17                  |
| 104294 | Manual Drain                          | 9, 15, 17                  |
| 104295 | 5-Micron Element                      | 9, 15, 17                  |
| 104296 | 40-Micron Element                     | 9, 15, 17                  |
| 104297 | 0.3-Micron Element                    | 9, 17                      |
| 104298 | Poly Bowl, Manual Drain               | 9, 15, 17                  |
| 104299 | Poly Bowl, Auto Drain                 | 9, 15, 17                  |
| 104300 | Metal Bowl, Manual Drain              | 9, 15, 17                  |
| 104301 | Metal Bowl, Auto Drain                | 9, 15, 17                  |
| 104302 | Regulator Service Kit (relieving)     | 4, 11, 15, 17              |
| 104303 | Regulator Service Kit (non-relieving) | 11, 15, 17                 |
| 104304 | Regulator Tamper Kit                  | 11, 15, 17                 |
| 104305 | 0 - 30 psi Spring                     | 11, 15, 17                 |
| 104306 | 0 - 60 psi Spring                     | 11, 15, 17                 |
| 104307 | 0 - 140 psi Spring                    | 11, 15, 17                 |
| 104310 | 0 - 140 psi Gauge Flush Mount         | 11, 15, 17, 21, 25, 27, 76 |

|          |                                       |                               |
|----------|---------------------------------------|-------------------------------|
| 104311   | Poly Bowl w/ guard                    | 13, 17                        |
| 104312   | Metal Bowl                            | 13, 17                        |
| 104313   | Lubricator Bowl Service Kit           | 13, 17                        |
| 104314   | Sight Dome Repair Kit                 | 13, 17                        |
| 104315   | Auto Drain                            | 29, 35, 37, 39, 45, 47        |
| 104316   | Manual Drain                          | 29, 35, 37, 39, 45, 47        |
| 104317   | 5-Micron Element                      | 29, 35, 37                    |
| 104318   | 40-Micron Element                     | 29, 35, 37                    |
| 104319   | 0.3-Micron Element                    | 29, 37                        |
| 104320   | Poly Bowl, Manual Drain               | 29, 35, 37                    |
| 104321   | Poly Bowl, Auto Drain                 | 29, 35, 37                    |
| 104322   | Metal Bowl, Manual Drain              | 29, 35, 37, 39, 45, 47        |
| 104323   | Metal Bowl, Auto Drain                | 29, 35, 37, 39, 45, 47        |
| 104324   | Metal Bowl w/ Sight Glass, Auto       | 29, 35, 37                    |
| 104325   | Metal Bowl w/ sight glass, manual     | 29, 35, 37                    |
| 104326   | Filter Bowl Service Kit               | 29, 35, 37                    |
| 104327   | Regulator Service Kit (relieving)     | 31, 35, 37                    |
| 104328   | Regulator Service Kit (non-relieving) | 31, 35, 37                    |
| 104329   | Regulator Tamper Kit                  | 31, 35, 37                    |
| 104330   | 0 - 60 psi Spring                     | 31, 35, 37                    |
| 104331   | 0 - 140 psi Spring                    | 31, 35, 37                    |
| 104332   | 10 - 200 psi Spring                   | 31, 35, 37                    |
| 104334   | 0 - 140 psi Gauge Flush mount         | 5, 31, 35, 37, 41, 45, 47, 76 |
| 104336   | Poly Bowl w/ Guard                    | 33, 37                        |
| 104337   | Metal Bowl                            | 33, 37, 43, 45, 47            |
| 104338   | Metal Bowl w/ Sight Glass             | 4, 33, 37, 43, 45, 47         |
| 104339   | Lubricator Bowl Service Kit           | 33, 37                        |
| 104363   | 0.3-Micron Element                    | 35, 37                        |
| 104420   | Auto Drain                            | 19, 25, 27                    |
| 104421   | Manual Drain                          | 19, 25, 27                    |
| 104422   | 5-Micron Element                      | 19, 25, 27                    |
| 104423   | 40-Micron Element                     | 19, 25, 27                    |
| 104424   | 0.3-Micron Element                    | 19, 25, 27                    |
| 104425   | Poly Bowl, Manual Drain               | 19, 25, 27                    |
| 104426   | Poly Bowl, Auto Drain                 | 19, 25, 27                    |
| 104427   | Metal Bowl w/ Sight Glass, Manual     | 19, 25, 27                    |
| 104428   | Metal Bowl w/ Sight Glass, Auto       | 19, 25, 27                    |
| 104429   | Filter Bowl Service Kit               | 19, 25, 27                    |
| 104430   | Regulator Service Kit (relieving)     | 21, 25, 27                    |
| 104431   | Regulator Service Kit (non-relieving) | 21, 25, 27                    |
| 104432   | Regulator Tamper Kit                  | 21, 25, 27                    |
| 104433   | 0 - 30 psi Spring                     | 21, 25, 27                    |
| 104434   | 0 - 60 psi Spring                     | 21, 25, 27                    |
| 104435   | 0 - 140 psi Spring                    | 21, 25, 27                    |
| 104439   | Poly Bowl w/ Guard                    | 23, 27                        |
| 104440   | Metal Bowl w/ Sight Glass             | 23, 27                        |
| 104441   | Lubricator Bowl Service Kit           | 23, 27                        |
| 104442   | Sight Dome Repair Kit                 | 23, 27                        |
| 104445   | 5-Micron Element                      | 39, 45, 47                    |
| 104446   | 40-Micron Element                     | 39, 45, 47                    |
| 104447   | 0.3-Micron Element                    | 39, 47                        |
| 104450   | Metal Bowl w/ Sight Glass, Manual     | 39, 45, 47                    |
| 104451   | Metal Bowl w/ Sight Glass, Auto       | 39, 45, 47                    |
| 104452   | Filter Bowl Service Kit               | 39, 45, 47                    |
| 104453   | Regulator Service Kit (relieving)     | 41, 45, 47                    |
| 104454   | Regulator Service Kit (non-relieving) | 41, 45, 47                    |
| 104455   | Regulator Tamper Kit                  | 41, 45, 47                    |
| 104456   | 0 - 50 psi Spring                     | 41, 45, 47                    |
| 104457   | 5 - 125 psi Spring                    | 41, 45, 47                    |
| 104458   | 10 - 250 psi Spring                   | 41, 45, 47                    |
| 104459   | Coalescing Filter Bowl, Manual        | 9, 17                         |
| 104460   | Coalescing Filter Bowl, Auto          | 9, 17                         |
| 104461   | Coalescing Filter Bowl, Manual        | 39, 47                        |
| 104462   | Coalescing Filter Bowl, Auto          | 39, 47                        |
| 104465   | Lubricator Bowl Service Kit           | 43, 47                        |
| 104466   | Sight Dome Repair Kit                 | 43, 47                        |
| 104468   | Filter Bowl Service Kit               | 9, 15, 17                     |
| 104470   | Sight Dome Repair Kit                 | 33, 37                        |
| 104481   | Metal Bowl, Manual Drain              | 19, 25, 27                    |
| 104482   | Metal Bowl, Auto Drain                | 19, 25, 27                    |
| 104483   | Metal Bowl                            | 23, 27                        |
| 104506   | 5-Micron Element                      | 49                            |
| 104507   | Bowl Kit                              | 49                            |
| 104508   | Auto Drain                            | 49                            |
| 104509   | Manual Drain                          | 49                            |
| 104510   | 5-Micron Element                      | 49                            |
| 104513   | Manual Override Drain                 | 49, 51                        |
| 104514   | .01-Micron Element                    | 51                            |
| 104515   | .01-Micron Element                    | 51                            |
| 104516   | .01-Micron Element                    | 51                            |
| 104518   | Relieving Piston Kit                  | 53                            |
| 104519   | Valve Assembly Kit                    | 53                            |
| 104520   | Valve Assembly Kit                    | 53                            |
| 104525   | Poly Bowl w/ Guard, Manual            | 55                            |
| 104527   | Sight Dome Repair Kit                 | 55                            |
| 104528   | Siphon Tube and Bronze Filter         | 55                            |
| 104529   | Poly Bowl w/ Guard, Manual            | 55                            |
| 100207-X | Service Kit                           | 59                            |



## Warranty

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

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

**THE FOREGOING WARRANTY SUPERSEDES, VOIDS AND IS IN LIEU OF ALL OR ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND NO WARRANTY OR MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE IS INTENDED OR MADE. The sole obligation of Ingersoll Rand and the original use purchaser's sole remedy is as stated above and in no event shall Ingersoll Rand be liable for any special, direct, indirect, incidental, consequential, or other damages or expenses of any nature including, without limitation, loss of profits or production time incurred by the original use purchaser or any other party.**

### Compatible Lubricants

Although air line lubrication is not required for most ARO valves, other mechanisms in the system may need such lubrication. When a lubricator is used it should be supplied only with oils which are compatible with the materials used in the valves for seals and poppets. Generally speaking, these are petroleum base oils with oxidation inhibitors, and aniline point between 180°F (82°C) and 220°F (104°C) and an ISO 32, or lighter, viscosity. Oils with phosphate type additives, such as zinc dithiophosphate, must be avoided because they can harm polyurethane valve components. The best oils to use in pneumatic systems are those specifically compounded for air line lubricator service. We recommend ARO Lubricative Oil P/N 29665, it is specially formulated for use with pneumatic power tools, motors, valves, cylinders and hoists.

### Cautions of the Use of Polycarbonate Plastic Bowls

*Use Only with Compressed Air.* Filters and lubricators with polycarbonate plastic bowls are specifically designed for compressed air service, and their use with any other fluid (liquid or gas) is a misapplication. The use with or injection of certain hazardous fluids in the system (e.g., alcohol or liquefied petroleum gas) could be harmful to the plastic bowl or result in a combustible condition or hazardous leakage. Before using with a fluid other than air, or for non-industrial applications, or for life support systems. Consult the factory. Use Metal Bowl Guard When Supplied. A metal bowl guard is supplied with all but the smallest bowls, and must always be used to minimize danger from fragmentation in the event of failure of a plastic bowl. Avoid Harmful Substances. Some compressor oils, chemical cleaners, solvents, paints, and fumes will attack plastic bowls and can cause bowl failure. Do not use with or near these materials. When a bowl becomes dirty, replace the bowl or wipe it with a clean dry cloth. Immediately replace any plastic bowl which is crazed, cracked, or deteriorated.

#### SUBSTANCES HARMFUL TO POLYCARBONATE PLASTIC BOWLS

|                                |                         |                       |                                  |                               |                       |
|--------------------------------|-------------------------|-----------------------|----------------------------------|-------------------------------|-----------------------|
| Acetaldehyde                   | Benzoic acid            | Cresol                | Ethylene glycol                  | Milk of lime (CaOH)           | Styrene               |
| Acetic acid                    | Benzyl alcohol          | Cyclohexanol          | Formic acid                      | Nitric acid                   | Sulfuric acid         |
| Acetone                        | Brake fluids            | Cyclohexanone         | Freon (refrigerant & propellant) | Nitrobenzene                  | Sulfuryl chloride     |
| Acrylonitrile                  | Bromobenzene            | Cyclohexene           | Gasoline (high aromatic)         | Nirocellulose lacquer         | Tetrahydronaphthalene |
| Ammonia                        | Butyric acid            | Dimethyl formamide    | Hydrazine                        | Phenol                        | Thiophene             |
| Ammonium fluoride              | Carbolic acid           | Dioxane               | Hydrocarbons                     | Phosphorous hydroxyl chloride | Toluene               |
| Ammonium hydroxide             | Carbon disulfide        | Ethane tetrachloride  | Hydrochloric acid                | Phosphorous trichloride       | Turpentine            |
| Ammonium sulfide               | Carbon tetrachloride    | Ethyl acetate         | Lacquer thinner                  | Propionic acid                | Xylene                |
| Anaerobic adhesives & sealants | Caustic potash solution | Ethyl ether           | Methyl alcohol                   | Pyridine                      | Perchloroethylene     |
| Antifreeze                     | Caustic soda solution   | Ethylamine            | Methylene chloride               | Sodium hydroxide              |                       |
| Benzene                        | Chlorobenzene           | Ethylene chlorohydrin | Methylene salicylate             | Sodium sulfide                |                       |
|                                | Chloroform              | Ethylene dichloride   |                                  |                               |                       |

#### Trade Names of Stustances HARMFUL to Polycarbonate Plastic Bowls

• Atlas Perma-Guard • Buna N • Cellulube #150 & #220 • Crylex #5 cement • Eastman 910 • Garlock 98403 (polyurethane) • Haskel 568-023 • Hilgard Company's hil phene • Houghton & Co. oil 1120, 1130, 1055 • Houstsafe 1000 • Kano Kroil • Keystone penetrating oil #2 • Loctite 271, 290, 601 • Loctite Teflon sealant • Marvel Mystery Oil • Minn. Rubber 366Y • National Compound N11 Nylock VC-3 • Parco 1306 Neoprene • Permabond 910 • Petron PD287 • Prestone • Pydraul AC • Sears Regular Motor Oil • Sinclair oil "Lily White" • Stauffer Chemical FYRQUEL 150 • Stillman SR 269-75 (polyurethane) • Stillman SR 513-70 (neoprene) • Tannergas • Telar • Tenneco and Erol 495 & 500 oils • Titon • Vibra-tite • Zerex

# Progress in motion

For more than 75 years, Ingersoll Rand ARO pumps and fluid products have helped drive innovation and create new standards for how the world gets work done. Over the years, we have applied our knowledge of our customers' industries and the demands placed on productivity and quality to consistently deliver products that increase productivity and minimize the costs associated with transferring, extruding, and applying a wide range of fluids, from low- to high-viscosity.

When you purchase an ARO product, you can be confident that you are getting industry-proven dependability, versatility, and value. No matter what your product, process, or location, we offer the products, accessories, and a worldwide distribution and service network prepared to keep your process in motion.

After all, we've been doing it for more than 75 years.



For more information visit:  
[fluids.ingersollrand.com](http://fluids.ingersollrand.com)



Distributed by:



Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

(800) 376-8665 • [ingersollrandproducts.com](http://ingersollrandproducts.com)