



This manual contains important warnings and information.  
**READ AND KEEP FOR REFERENCE.**

INSTRUCTIONS

First choice when quality counts.™

## HIGH VOLUME

# Air Regulators

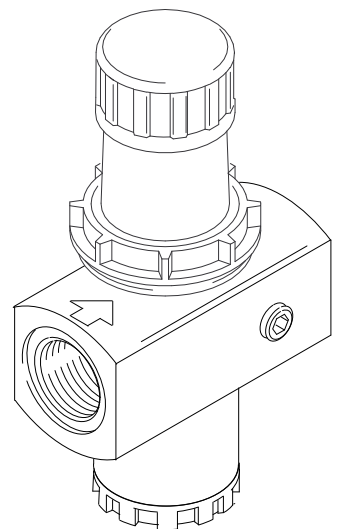
*300 psi (2.1 MPa, 21 bar) Maximum Air Inlet Pressure*  
*5 to 150 psi (.03 to 1 MPa, 0.3 to 10 bar) Pressure Range*

### Part No. 114-459

1 in. npt(f) inlet and outlet

### Part No. 114-105

1/2 npt(f) inlet and outlet

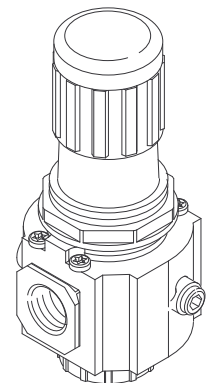


**Part No. 114-459**

8387A

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**Part No. 114-105**

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# Symbols

## Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

## Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

## ! WARNING



INSTRUCTIONS

### EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Follow the **Pressure Relief Procedure** on page 4 if the spray tip clogs and before cleaning, checking or servicing the equipment.
- Do not exceed the maximum working pressure of the lowest rated system component. Refer to the **Technical Data** on page 7 for the maximum working pressure of this equipment.
- Always wear protective eyewear when operating or servicing this equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

# Installation

## Prepare the Site

**NOTE:** Always use Genuine Graco Parts and Accessories, available from your Graco distributor. If you supply your own accessories, be sure they are adequately sized and pressure rated for your system.

Bring a compressed air supply line from the air compressor to the pump location. Be sure all air hoses are properly sized and pressure-rated for your system. Use only electrically conductive hoses.

Before installing any air line components, blow out the air lines to remove scale and other debris. Use pipe compound or tape sparingly and only on male threads.

## **WARNING**

A bleed-type master air valve is required in your system. Install the valve downstream from the air regulator. This valve relieves air trapped between it and the pump when the valve is closed, to help reduce the risk of serious injury, including fluid injection and splashing of fluid in the eyes or on the skin, and injury from moving parts if you are adjusting or repairing the pump.

## Install the Regulator

The air regulator controls pump speed and outlet pressure by adjusting the air pressure to the pump. Locate the regulator as close as possible to the equipment it serves, but **upstream** from the pump's bleed-type master air valve. Install the regulator in the air line so the air flow is in the direction of the arrow stamped on the body.

Panel nuts are included with the regulators, for use in wall mountings.

# Operation

## Pressure Relief Procedure

### **WARNING**



#### **INJECTION HAZARD**

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean the spray tips.

1. Lock the gun trigger safety.
2. Close all bleed-type master air valves.
3. Close the air regulator.
4. Unlock the gun trigger safety.
5. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun to relieve pressure.

6. Lock the gun trigger safety.
7. Open any fluid drain valves (required in your system), having a container ready to catch the drainage.
8. Leave the drain valve(s) open until you are ready to spray again.

*If you suspect that the spray tip or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip or hose.*

## Adjusting the Air Regulator

Open the air regulator slowly. Use it to control pump speed and fluid pressure. Always use the lowest air pressure necessary to get the desired results. Higher pressures cause premature tip and pump wear.

### **WARNING**

#### **COMPONENT RUPTURE HAZARD**



To reduce the risk of overpressurizing your system, which could cause component rupture and serious injury, *never exceed the specified Maximum Incoming Air Pressure of the equipment (see the **Technical Data** on page 7 and in the separate component manuals).*

# Service

## Air Regulator Service

Repair Kits are available. Refer to pages 5 and 6.

If the regulator fails to operate, operates roughly, or vibrates, service it as follows.

### **WARNING**

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 4.

Fully relieve pressure and remove the regulator from the air line.

Refer to pages 5 and 6. Disassemble the regulator.

Clean the parts with household soap and water or denatured alcohol. Wipe dry with a clean, soft cloth. Use compressed air to blow dirt and contaminants out of the regulator body.

Inspect all parts for wear or damage. Replace damaged parts.


Lubricate the bearing area, all o-rings, adjusting screw threads, and spring ends with no. 2 lithium-base grease. Reassemble the regulator.

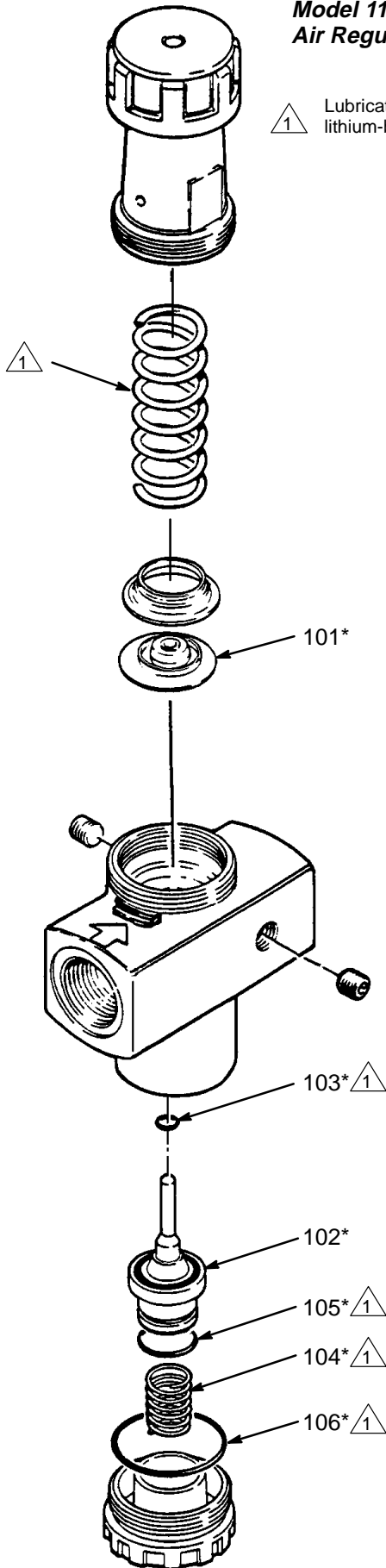
# Parts

**Model 114-459  
Air Regulator Shown**

**Repair Kit 240-817 (includes items 101 to 107). For Part No. 114-459 Air Regulator.**

Kit parts are marked with an asterisk (101\*). Individual parts are not available separately.

 Lubricate with no. 2 lithium-base grease.




Ref. No.	Part No.	Description	Qty.
101*	N/A	DIAPHRAGM	1
102*	N/A	VALVE ASSEMBLY	1
103*	N/A	O-RING	1
104*	N/A	SPRING	1
105*	N/A	O-RING	1
106*	N/A	O-RING	1

# Parts

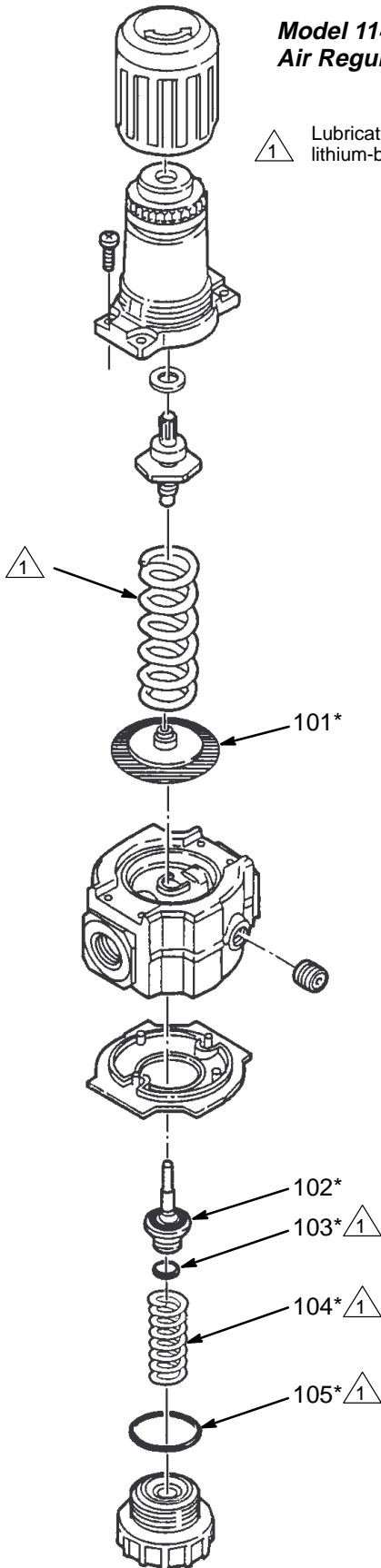
## Repair Kit 240-818 (includes items 101 to 105). For Part No. 114-105 Air Regulator.

**Model 114-105  
Air Regulator Shown**

Kit parts are marked with an asterisk (101\*). Individual parts are not available separately.

 Lubricate with no. 2 lithium-base grease.

Ref. No.	Part No.	Description	Qty.
101*	N/A	DIAPHRAGM	1
102*	N/A	VALVE ASSEMBLY	1
103*	N/A	O-RING, valve	1
104*	N/A	SPRING, valve	1
105*	N/A	O-RING, plug	1

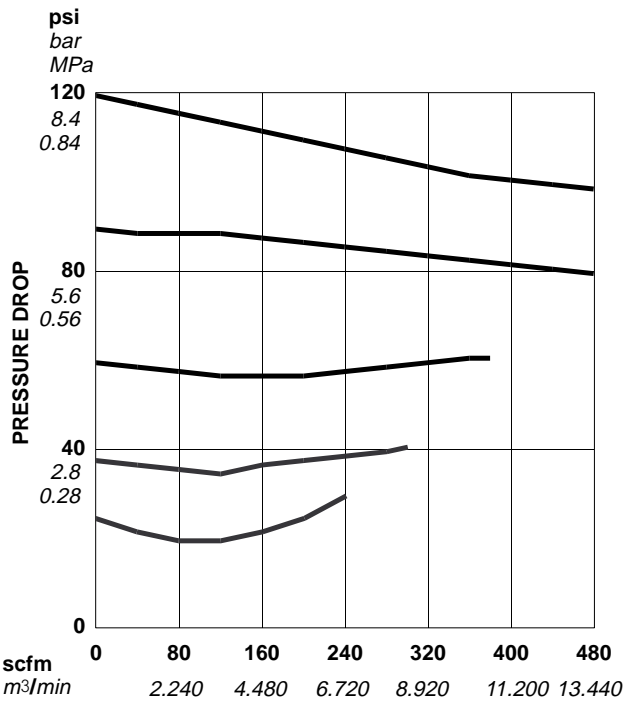


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# Technical Data

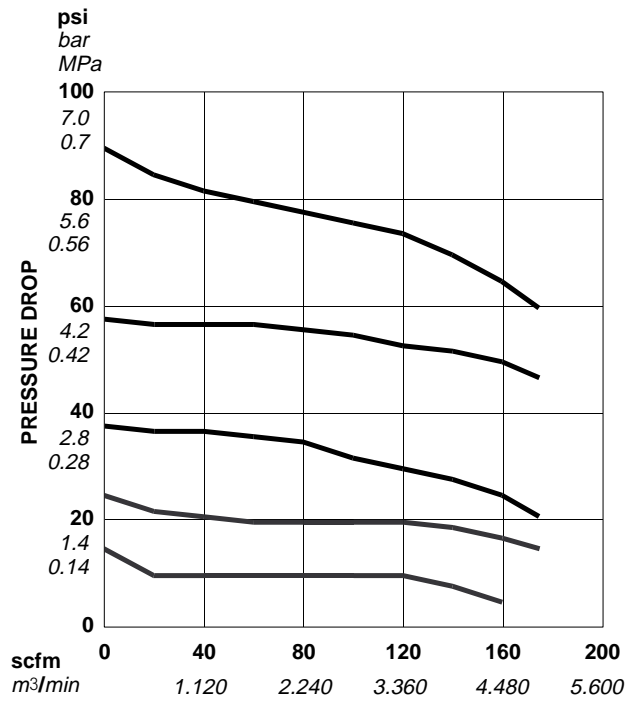
Category	Data
Maximum air input pressure	300 psi (2.1 MPa, 21 bar)
Air pressure range	5 to 150 psi (.03 to 1 MPa, 0.3 to 10 bar)
Air inlet and outlet size	Part No. 114-459: 1 in. npt(f) Part No. 114-105: 1/2 npt(f)
Gauge port size (air regulator)	1/4 npt(f)
Maximum operating temperature	175°F (79°C)

MODEL 114-459 AIR REGULATOR FLOW CURVE



AIR FLOW AT INLET PRESSURE OF 150 PSI (0.84 MPa, 8.4 BAR)

MODEL 114-105 AIR REGULATOR FLOW CURVE



AIR FLOW AT INLET PRESSURE OF 100 PSI (0.7 MPa, 7 BAR)

# Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

## **FOR GRACO CANADA CUSTOMERS**

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# Graco Phone Number

**TO PLACE AN ORDER**, contact your Graco distributor, or call this number to identify the distributor closest to you:  
**1-800-367-4023 Toll Free**

*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
Graco reserves the right to make changes at any time without notice.*

**Sales Offices:** Minneapolis, Detroit, Los Angeles  
**Foreign Offices:** Belgium, Canada, England, Korea, France, Germany, Hong Kong, Japan

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**

**<http://www.graco.com>**

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