

# Air Control Box with Gun Flush Box

3A5590A

EN

*Air control box and gun flush box to provide flushing for manual spray systems.  
For professional use only.*

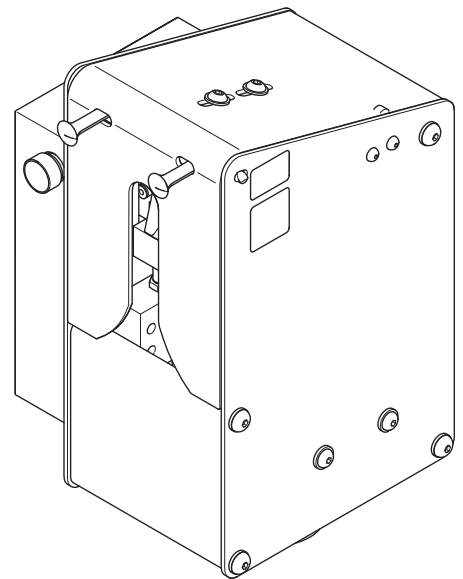
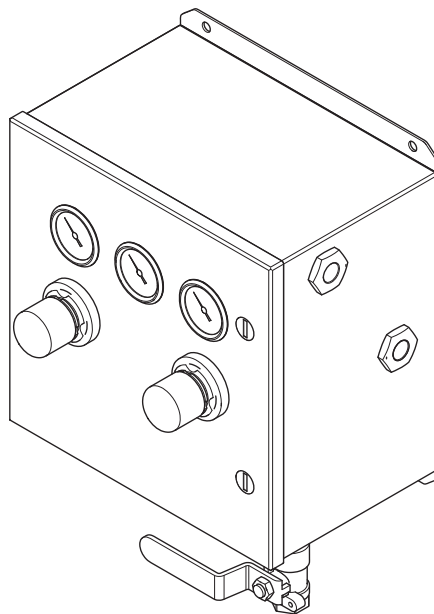
**Part No. 25E017**

*100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure*



## **Important Safety Instructions**

Read all warnings and instructions in this manual before using this equipment. Save these instructions.



ti33501a

# Contents










<b>Models</b>	<b>2</b>	<b>Trigger Height Adjustment</b>	<b>15</b>
<b>Warnings</b>	<b>3</b>	<b>Operation</b>	<b>16</b>
<b>Introduction</b>	<b>5</b>	Spray Gun Operation	16
<b>Component Identification</b>	<b>6</b>	Operating Checklist	16
Air Control Box	6	Setting Air Control Box Pressures	17
Air Control Box Symbols Key	7	Filling the Gun	19
Gun Flush Box	8	Spraying	20
<b>Typical Installation</b>	<b>9</b>	Adjusting Spray Pressure	20
<b>Air Control Box Installation</b>	<b>10</b>	Flushing the Gun	21
Typical Installation	10	<b>Maintenance</b>	<b>22</b>
Location	10	<b>Troubleshooting</b>	<b>23</b>
Mounting	10	<b>Parts</b>	<b>24</b>
<b>Gun Flush Box Installation</b>	<b>11</b>	Air Control Box, 25D594	24
Typical Installation	11	Gun Flush Box, 25D986	26
Ventilation	11	<b>Accessories</b>	<b>28</b>
Location	11	<b>Technical Specifications</b>	<b>29</b>
Mounting	11	<b>Graco Standard Warranty</b>	<b>30</b>
Install the Gun Holder	12		
Enclosed Waste Container	13		
Grounding	13		
Connect Air Lines	14		

# Models

	25D594	25D98C
	Air Control Box	Gun Flush Box
25E017	✓	✓

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <b>WARNING</b>	
    	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire, explosion, and electric shock:</p> <ul style="list-style-type: none"> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Only use grounded Graco conductive air supply hoses.</li> <li>• Do not use pail liners unless they are conductive and grounded.</li> <li>• <b>Stop operation immediately</b> if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.</li> <li>• Use and clean equipment only in well ventilated area.</li> <li>• Control flush pressures to less than 300 psi (2 MPa, 21 bar) to reduce material flow velocity and reduce the static buildup that can occur with certain material chemistries.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).</li> <li>• Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul> <p><b>Electrostatic Gun Precautions</b></p> <ul style="list-style-type: none"> <li>• Electrostatic equipment must be used only by trained, qualified personnel who understand the requirements of this manual.</li> <li>• Check gun resistance, hose resistance, and electrical grounding daily.</li> <li>• Always turn the electrostatics off when flushing, cleaning or servicing equipment.</li> <li>• Do not flush the system with the gun electrostatics turned on.</li> <li>• Interlock the gun turbine air supply to prevent operation of the power supply during flushing.</li> <li>• Do not turn on the gun electrostatics until all solvent is purged from the system.</li> <li>• Use cleaning solvents with highest possible flash point when flushing or cleaning equipment.</li> <li>• Never spray or flush solvent at high pressure.</li> <li>• To clean the exterior of the equipment, cleaning solvents must have a flash point at least 15°C above ambient temperature. Non-ignitable fluids are preferred.</li> </ul>
  	<p><b>PRESSURIZED EQUIPMENT HAZARD</b></p> <p>Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> <li>• Follow the <b>Pressure Relief Procedure</b> in your system manual when you stop spraying/dispensing and before cleaning, checking, or servicing equipment.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.</li> <li>• Do not stop or deflect fluid leaks with your hand, body, glove, or rag.</li> </ul>



# WARNING



## EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheet (SDS) from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



## TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read Safety Data Sheet (SDS) to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



## MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in your system manual and disconnect all power sources.



## PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

# Introduction

The air control box and gun flush box (GFB) system is used to regulate the air pressure to the pump and spray gun used in a spray painting application. The system is operated pneumatically, with no electrical power source required.

The pneumatic regulators and interlock switches inside the two boxes control when the pump operates at high or low pressure, and when atomizing air is either delivered to the spray gun or is shut off.

The purpose of this system is to provide a safe environment and process for filling the gun with paint, for spraying, and for flushing the gun with solvent. The system helps ensure that:

- Filling or flushing the gun can be performed with no air pressure to the gun and low air pressure to the pump.
- High air pressure is supplied to the pump and atomizing air is supplied to the gun only when the gun is ready to be used for spraying.
- Accidental gun triggering is prevented with safety interlocks.

The following table shows the resulting status of air to the gun and pump depending on the condition of the gun flush box.

GFB Condition	Gun Air	Pump Pressure
Lid Open & Gun not in Box	Off	Low
Lid Closed & Gun not in Box (Spraying)	On	High
Lid Closed & Gun in Box (Flushing & Filling)	Off	Low

# Component Identification

## Air Control Box

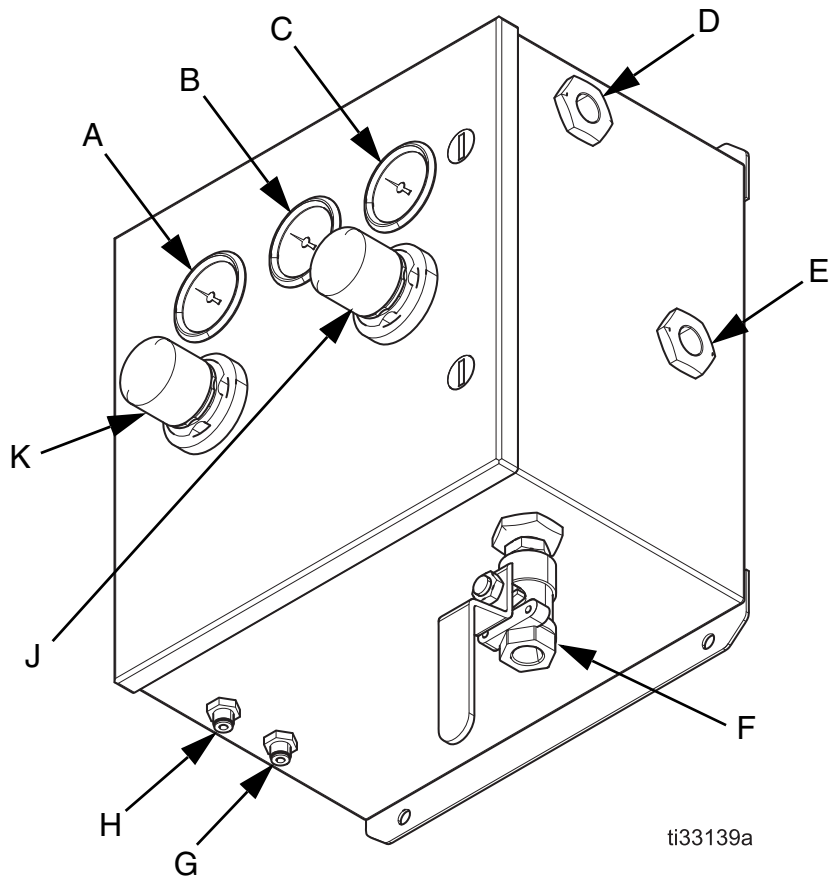
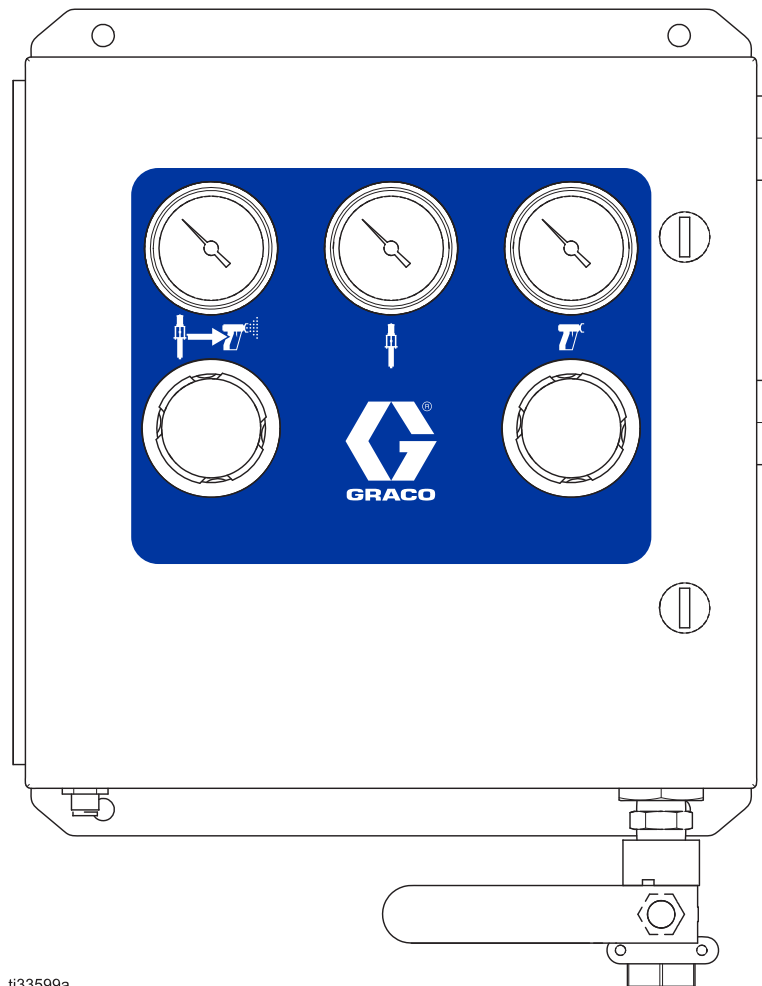


FIG. 1: Component Identification (Air Control Box)

Ref.	Description
A	<b>Pump Spray Gauge:</b> Displays the air pressure setting that drives the pump. Adjust using regulator K.
B	<b>Pump Actual Gauge:</b> Displays actual pressure of the air driving the pump and controlling fluid flow to the spray gun.
C	<b>Gun Actual Gauge:</b> Displays actual air pressure at the spray gun. Adjust using regulator J.
D	<b>Air Outlet to Spray Gun:</b> Air used to atomize paint at the gun, and for the electrostatic turbine (if used).
E	<b>Air Outlet to Pump:</b> Air used to operate the pump, which delivers paint to the spray gun.
F	<b>Main Air Inlet and Ball Valve Control:</b> Supply air from a user-provided source.




Ref.	Description
G	<b>Signal Air Inlet from Gun Flush Box:</b> Shuts off atomizing air to spray gun when a gun is in the gun flush box or when the GFB lid is open.
H	<b>Air Outlet to Gun Flush Box:</b> Provides the air pressure used to operate the gun flush box.
J	<b>Air Regulator:</b> Use to adjust the atomizing air pressure at the spray gun.
K	<b>Air Regulator:</b> Use to adjust the air pressure driving the pump while spraying paint.
L	<b>Air Regulator (located inside the box):</b> Use to set the air pressure at the pump when filling or flushing a spray gun inside the gun flush box.

## Air Control Box Symbols Key

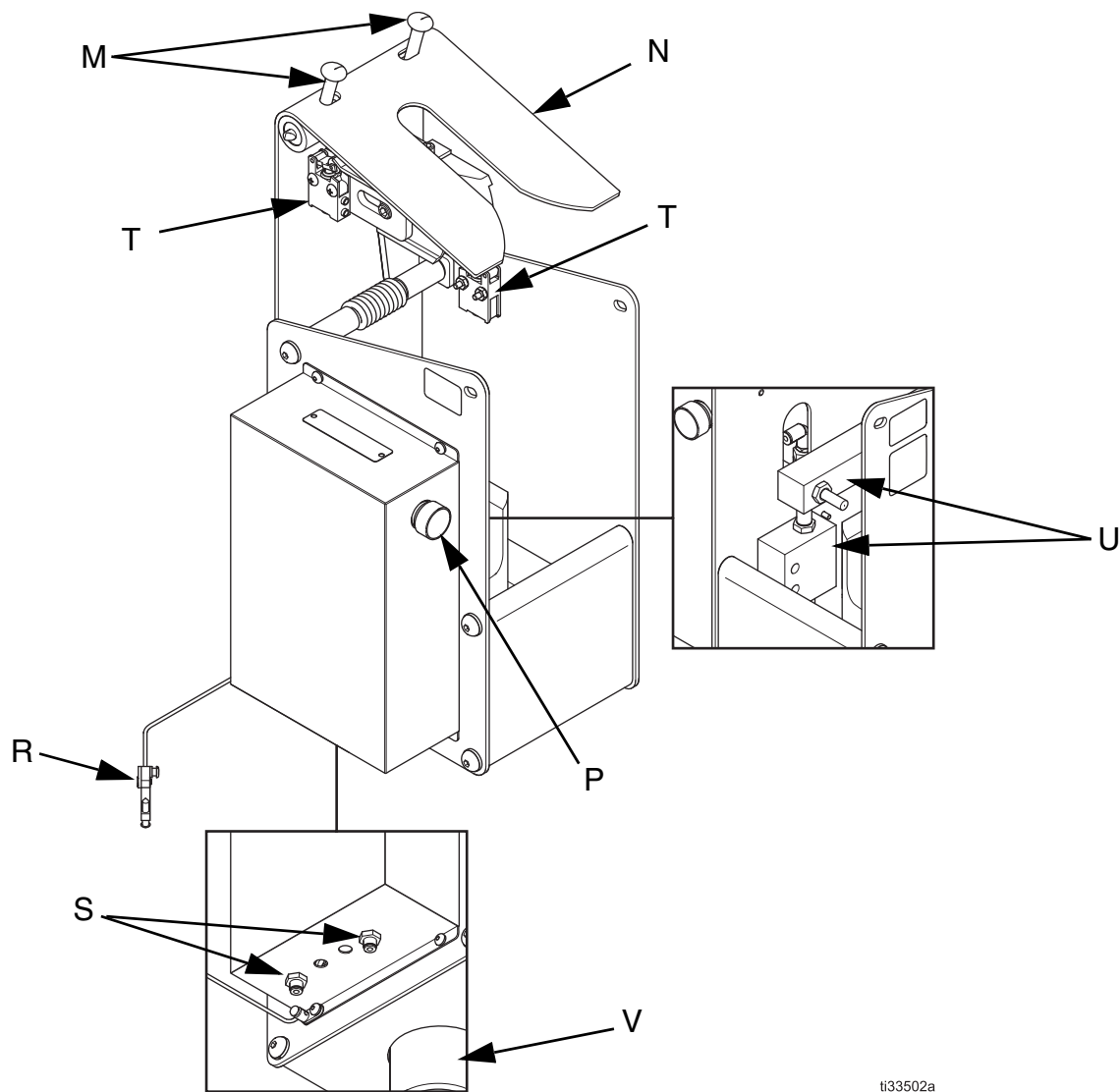


ti33599a

**FIG. 2: Symbols Key (Air Control Box)**

Ref.	Description
	Pump spray pressure setting gauge and adjustment knob
	Actual pump pressure gauge
	Actual gun pressure gauge and adjustment knob

# Gun Flush Box



ti33502a

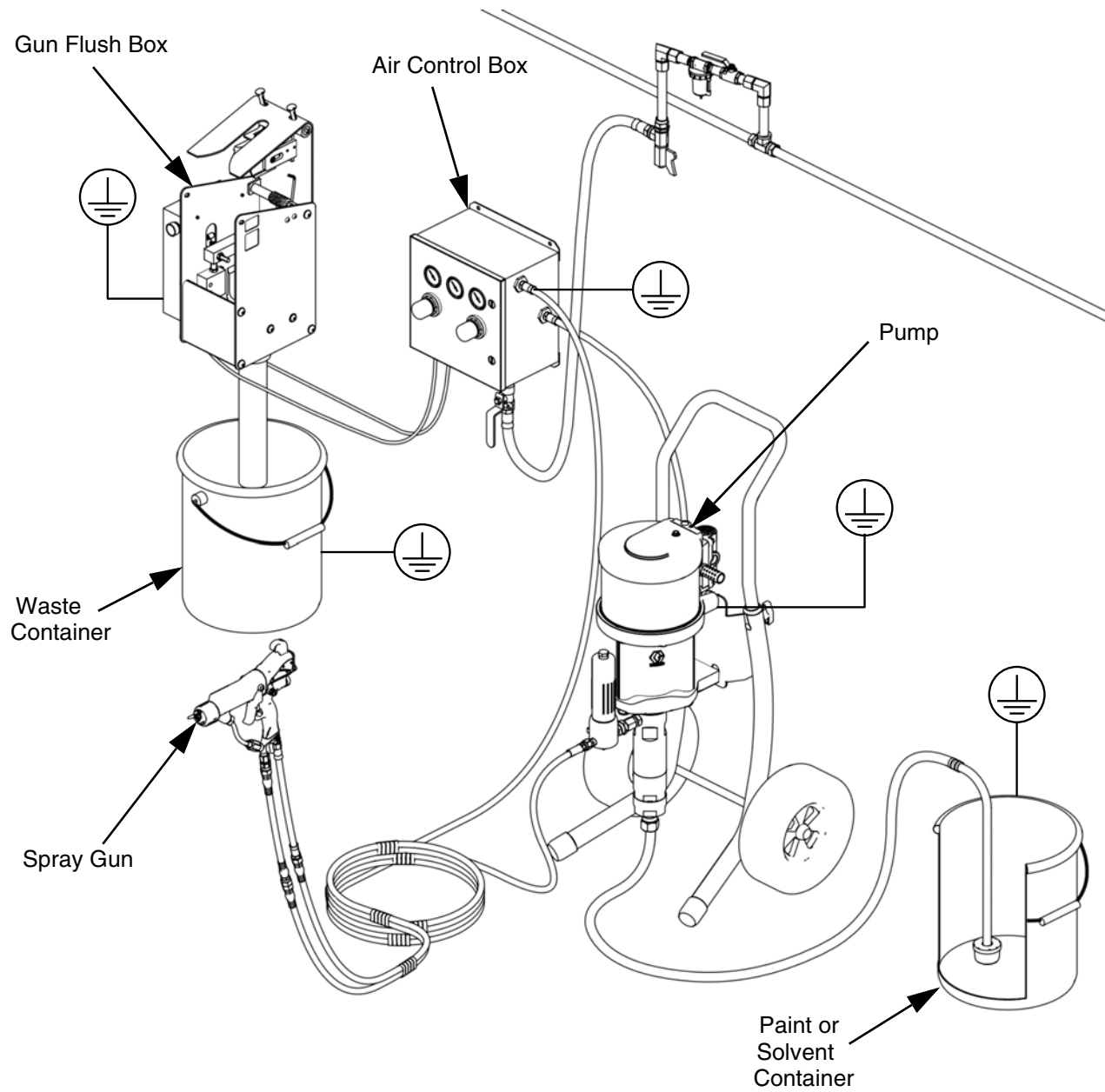
FIG. 3: Component Identification (Gun Flush Box)

Ref.	Description
M	<b>Latch Knobs:</b> Press the two knobs together to open or close the gun flush box lid.
N	<b>Lid:</b> Close the spring-loaded lid to secure the gun inside the gun flush box or to place the system in a spray-ready state. The lid must be closed to send atomizing air to the spray gun.
P	<b>Trigger Button:</b> Press and hold to trigger the gun inserted inside the gun flush box, for filling or flushing the gun.
R	<b>Grounding Clamp:</b> Use to connect the gun flush box to a true earth ground.

Ref.	Description
S	<b>Pneumatic Fittings:</b> Two push-in tube fittings connect the gun flush box to the air control box.
T	<b>Pneumatic Limit Switches:</b> Two switches send an air signal to the air control box, indicating whether the lid is open or closed and, if closed, whether a gun is inside the gun flush box.
U	<b>Trigger Cylinder Block and Arm:</b> Press and hold button (P) to extend two pneumatic cylinders to trigger the gun inside the gun flush box.
V	<b>Gun Holder (not included):</b> Correctly positions the gun inside the gun flush box. Order the gun holder matching the gun being used.



# Typical Installation



**FIG. 4: Typical Installation**

# Air Control Box Installation

## Typical Installation

Refer to the typical installation drawing in FIG. 4, page 9, as a guide for installing the system, including the air control box and the gun flush box. Contact your Graco distributor for an actual system design.

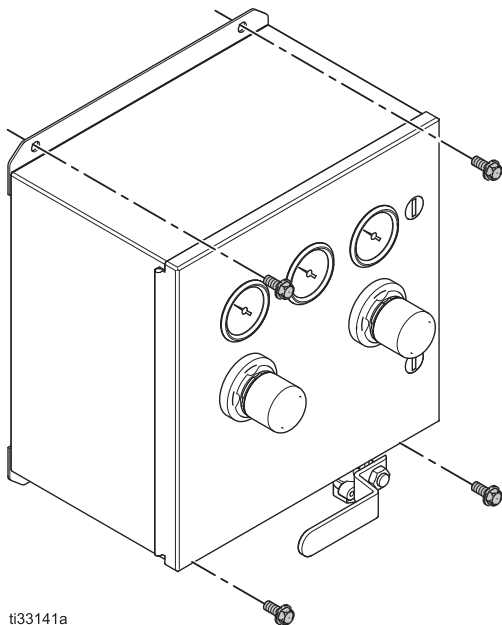
## Location

Locate the air control box in an area easily accessible to the operator during filling, spraying, and flushing. Provide adequate clearance around the box for the air connections.

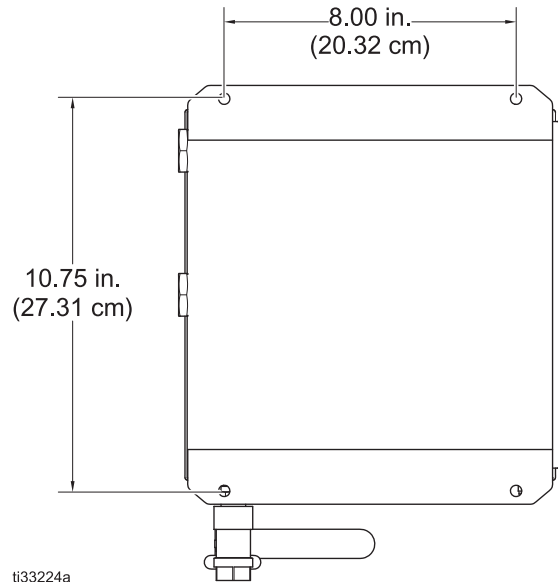
## Mounting

The air control box can be wall or stand mounted. Make sure the mounting surface will withstand the weight of the air control box, hoses, and the stress of operation. Do one of the following:

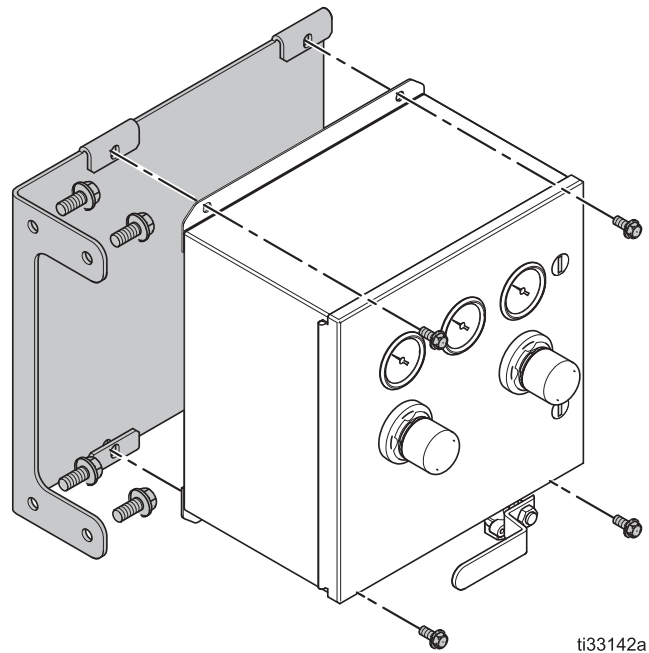
- Install the air control box, using the mounting holes as a template. See FIG. 5. For dimensions, see FIG. 6.
- Install the air control box, using the optional mounting bracket. See FIG. 7. See page 28 to order.



**FIG. 5: Mounting the Air Control Box**



**FIG. 6: Air Control Box Mounting Dimensions**






**FIG. 7: Using the Mounting Bracket**

# Gun Flush Box Installation

## Typical Installation

Refer to the typical installation drawing in FIG. 4, page 9, as a guide for installing the system, including the air control box and the gun flush box. Contact your Graco distributor for an actual system design.

## Ventilation

				
<b>TOXIC OR FLAMMABLE FUMES HAZARD</b> To avoid hazardous concentrations of flammable or toxic fumes: <ul style="list-style-type: none"> <li>• Install the gun flush box in a properly ventilated spray booth.</li> <li>• Electrically interlock the gun flush box air supply with the ventilating fans to prevent the box from operating when ventilating fans are not operating.</li> <li>• Never operate the gun flush box unless ventilation fans are operating.</li> <li>• Follow all local codes and regulations regarding air exhaust velocity requirements.</li> </ul>				

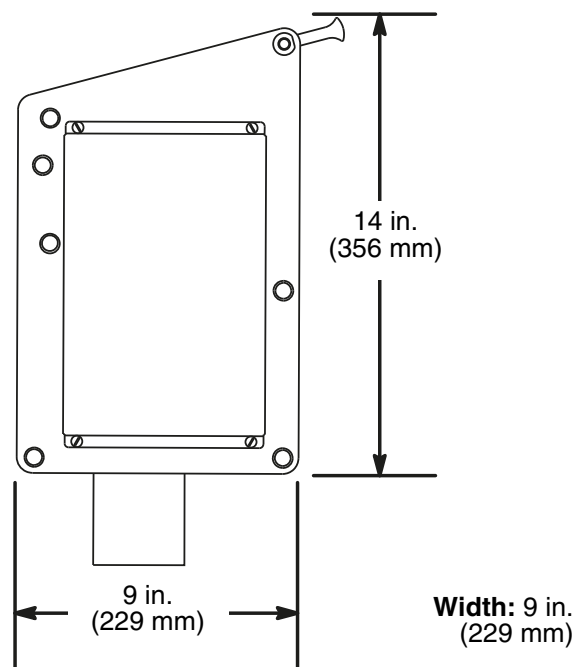
## Location

Locate the gun flush box in an area easily accessible to the operator and away from the spray or application point, to help avoid getting over-spray on the box.

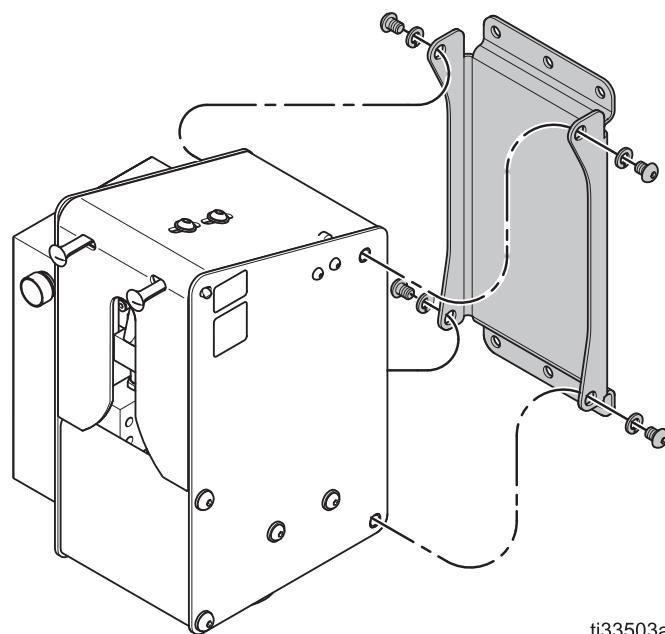
## Mounting

The gun flush box can be wall, stand, or drum mounted in the spray booth. Make sure the mounting surface will withstand the weight of the gun flush box, hoses, and the stress of operation. Do one of the following:

- Install the gun flush box, using the mounting holes as a template. See FIG. 8 for dimensions.
- Install the gun flush box, using the provided mounting bracket. See FIG. 9.



**FIG. 8: Mounting Dimensions**



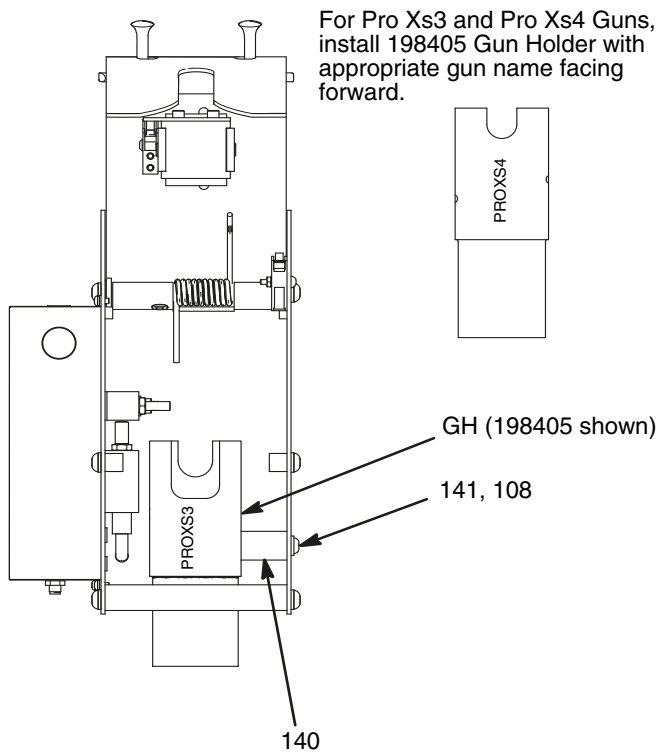
ti33503a

**FIG. 9: Using the Optional Mounting Bracket**

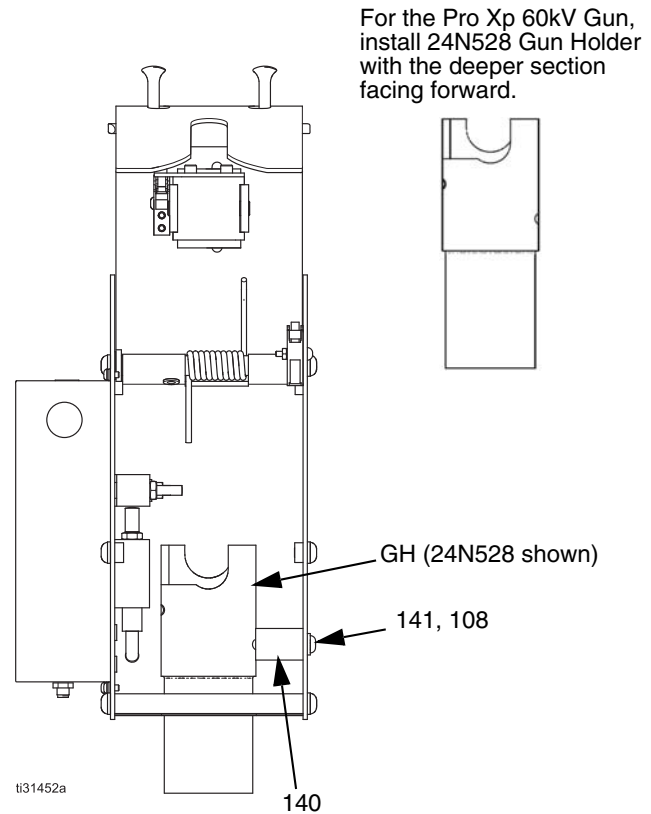
## Install the Gun Holder

The correct gun holder is necessary to operate the gun flush box. Use the gun holder that matches the spray gun to be used.

1. Order the correct gun holder for your gun. See page 28.
2. Remove the two screws and washers (141, 108) holding mounting bracket (140) to the right-hand side of the gun flush box. See FIG. 10 or FIG. 11.
3. Install the gun holder (GH), aligning its mounting holes with the holes in the mounting bracket (140) and the side of the gun flush box. Attach using the screws and washers (141, 108).



**FIG. 10: Gun Holder Installation (Pro Xs3 and Xs4 Guns)**



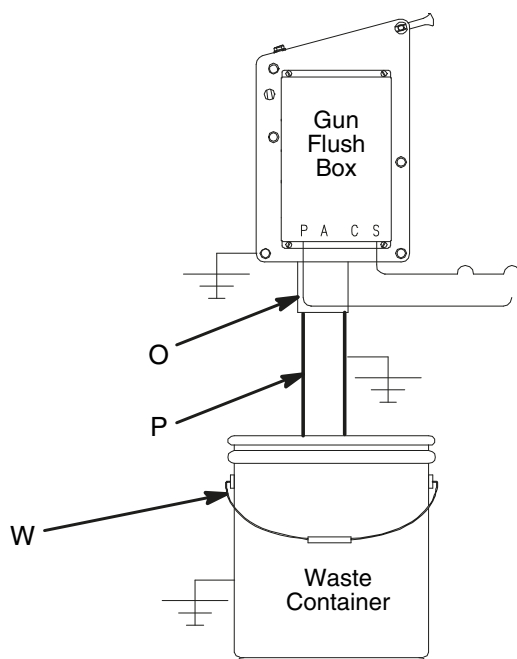
**FIG. 11: Gun Holder Installation (Pro Xp 60kV Gun)**

## Enclosed Waste Container



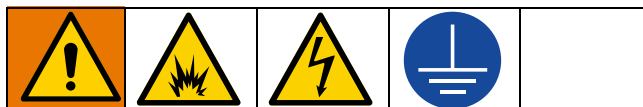
To reduce the risk of splashing and static generation, a minimum of two feet (0.6 m) of straight plastic or grounded metal pipe must be connected between the gun flush box and an enclosed waste container for the solvent.

Connect the longest possible section of straight plastic or grounded metal pipe (P) between the gun flush box fluid outlet (O) and an enclosed metal waste container (W). See FIG. 12.



**FIG. 12: Enclosed Waste Container Requirements**

## Grounding



To reduce the risk of fire, explosion, or electric shock, the system must be properly grounded.

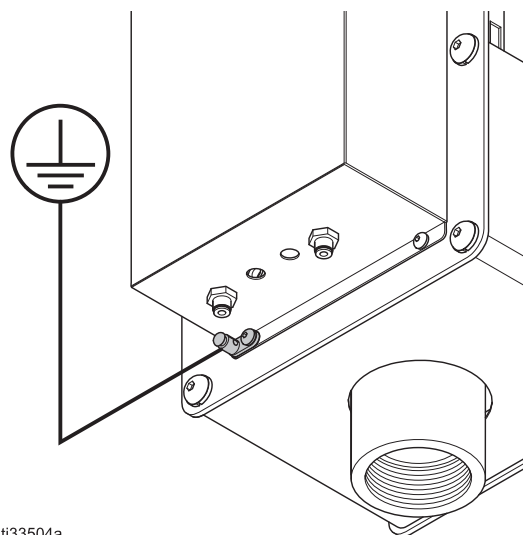
- Follow the warnings starting on page 3.
- Ground the gun flush box and waste container as instructed below.
- Ground your system as instructed in the system manual.

**Gun Flush Box:** Connect a ground wire to the grounding lug on the box. Connect the ground clamp to a true earth ground. Refer to FIG. 13.

**Waste Container:** Connect a ground wire and clamp between a metal waste container and a true earth ground. Refer to FIG. 4.

**Spray Gun:** See your gun instruction manual.

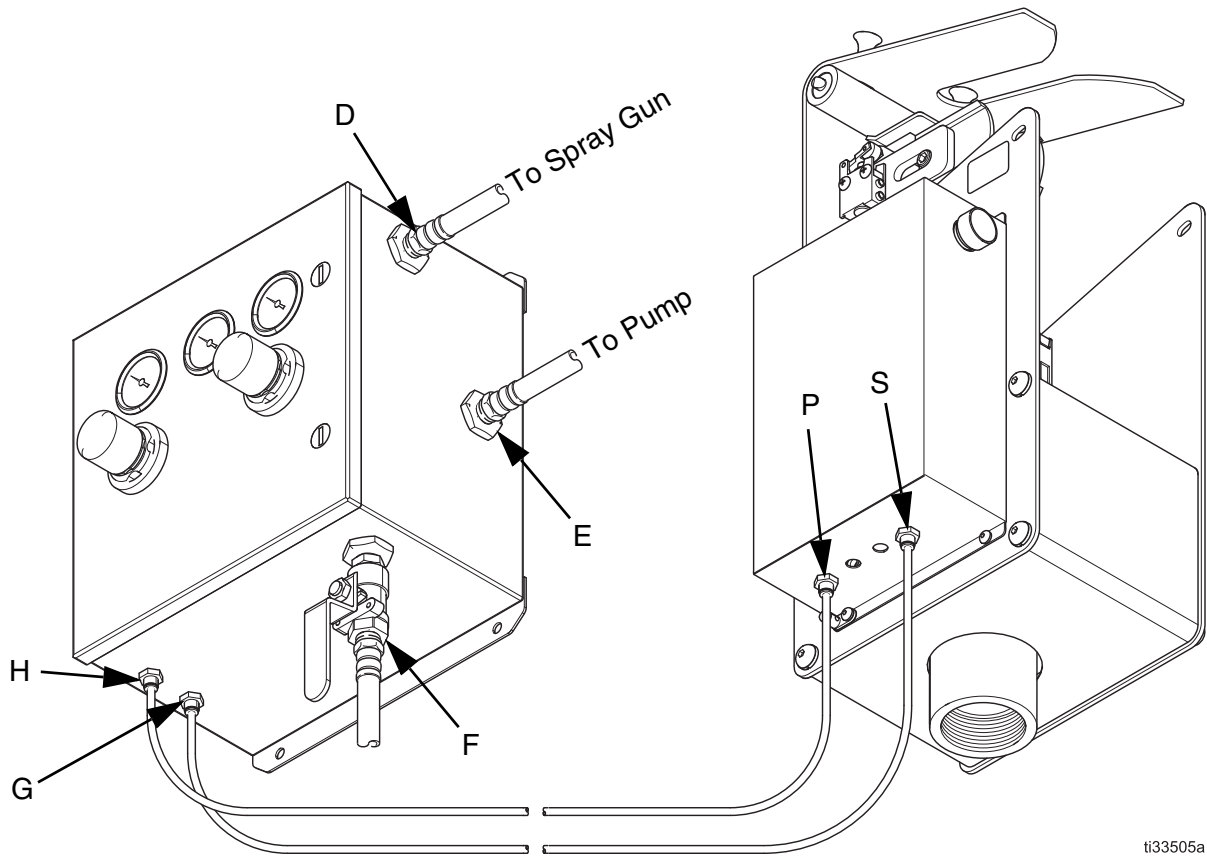
**Flammable Liquids** in the spray area must be kept in approved, grounded containers. Do not store more than the quantity needed for one shift.



ti33504a

**FIG. 13: Grounding Lug**

## Connect Air Lines



**FIG. 14: Air Line Connections**

1. Connect a 5/32" (4 mm) OD air line between port H on the air control box and the **P** fitting on the gun flush box.
  2. Connect a 5/32" (4 mm) OD air line between port G on the air control box and the **S** fitting on the gun flush box.
  3. Connect the air line from port D on the air control box to the spray gun.
  4. Connect the air line from port E on the air control box to the pump.
  5. Connect the air line from the shop air supply to the main air inlet F. Use a clean, dry air supply; filtered to 10 microns.
- NOTE:** Ports A and C on the gun flush box are not used. No fitting is installed and no connections are made to those two ports.

# Trigger Height Adjustment

Follow this procedure to ensure the gun flush box triggers the gun properly during use.

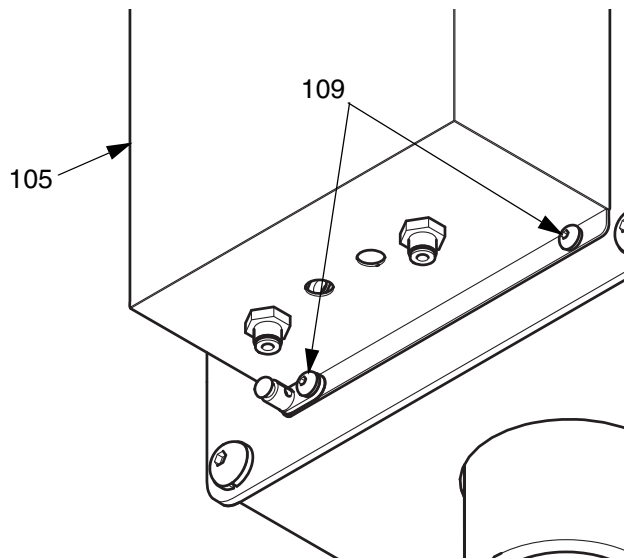
1. Insert the gun into the gun holder, inside the gun flush box.

**NOTE:** If using a Pro Xp™ Smart Gun model, the gun must be rotated to clear the hinge spring during insertion and removal.

2. Close the lid of the gun flush box.
3. Press and hold the gun trigger button to extend the gun trigger cylinder.
4. Look through the opening in the door to ensure that the gun is being fully triggered.

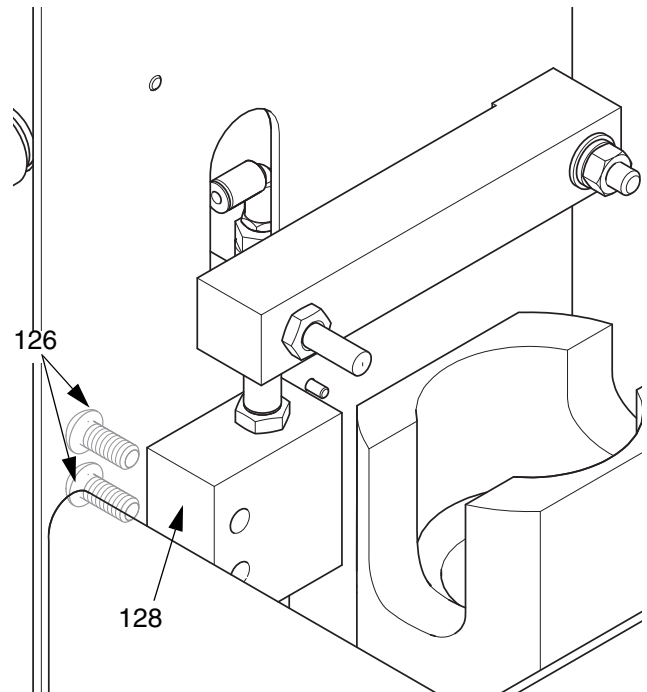
If the gun is not fully triggering, follow steps 5–10 to adjust it.

5. Remove the four screws (109) that hold cover (105) to the gun flush box. See FIG. 15.
6. Loosen both screws (126) on the side of the box that holds the cylinder block (128). See FIG. 16.



**FIG. 15: Gun Flush Box Cover and Air Fittings**

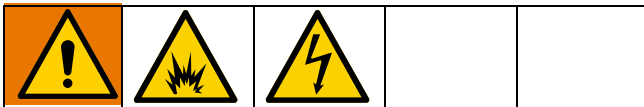
7. Raise the cylinder block (128) the necessary amount to fully trigger the gun.
8. Tighten both screws (126) for the cylinder block (128).



**FIG. 16: Setting the Trigger Height**

9. Replace the cover (105) and the four screws (109) holding it in place.
10. Test the gun trigger button to confirm that the gun is fully triggered.

# Operation



To reduce the risk of fire, explosion, or electric shock:

- Keep fluid pressure below 300 psi (2 MPa, 21 bar).
- For Electrostatic Guns:
  - Turn off the electrostatics before placing the gun in the gun flush box and whenever you stop spraying.
  - In multiple gun systems, each gun must be used only with its corresponding gun flush box for the interlocks to work. **For example:** With a two gun system, placing gun #1 into gun flush box #2 will shut off the atomization air for gun #2 and leave the atomization air on for gun #1 during use.

## Spray Gun Operation

See your spray gun manual for operation instructions.

## Operating Checklist

Check the following list daily, before starting to operate the system.

- \_\_\_\_ 1. Operators are trained to operate the system.
- \_\_\_\_ 2. If using an electrostatic gun, operators are trained to turn off the gun electrostatics before placing the gun in the gun flush box.
- \_\_\_\_ 3. The gun flush box and waste container are grounded. Do not use a pail liner in the grounded bucket. See **Grounding**, page 13.
- \_\_\_\_ 4. All electrically conductive objects in the spray area, including paint containers, gun flush boxes, and wash cans, are grounded and the floor of the spray area is electrically conductive and grounded.
- \_\_\_\_ 5. The operator and all persons entering the spray area are properly grounded. See **Grounding**, page 13.
- \_\_\_\_ 6. Ventilation fans are operating properly.
- \_\_\_\_ 7. All debris, including rags, and non-essential equipment, is removed from the spray area.
- \_\_\_\_ 8. All flammable liquids in the spray booth are in approved, grounded containers.
- \_\_\_\_ 9. The gun flush box lid is in the open position at all times, except when spraying paint or actively flushing or filling the gun.



## Setting Air Control Box Pressures

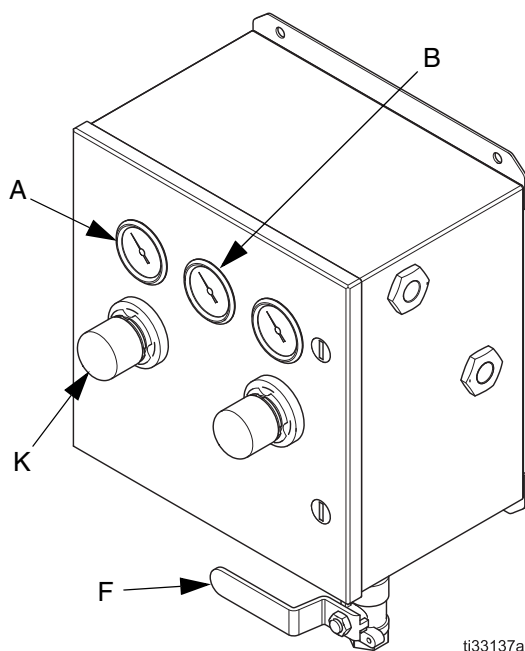
### Set Pump Spray Pressure

Use these steps to set the pressure of the air delivered to the pump during spraying. This is the spray pressure setting, used when the lid of the gun flush box is closed and the gun is out of the box.

1. Open the ball valve (F) to allow compressed air into the air control box.
2. Remove the gun from the gun flush box and close the lid.

High pressure air is delivered to the pump, and atomizing air is delivered to the gun.

3. Turn the air regulator (K) to set the desired pump pressure, displayed on the gauge (A).



**FIG. 17: Set Pump Spray Pressure for Spraying**

**NOTE:** The actual air pressure at the pump is displayed on gauge (B). While spraying paint, you can use the air regulator (K) to adjust the pump spray pressure. See **Adjusting Spray Pressure**, page 20.

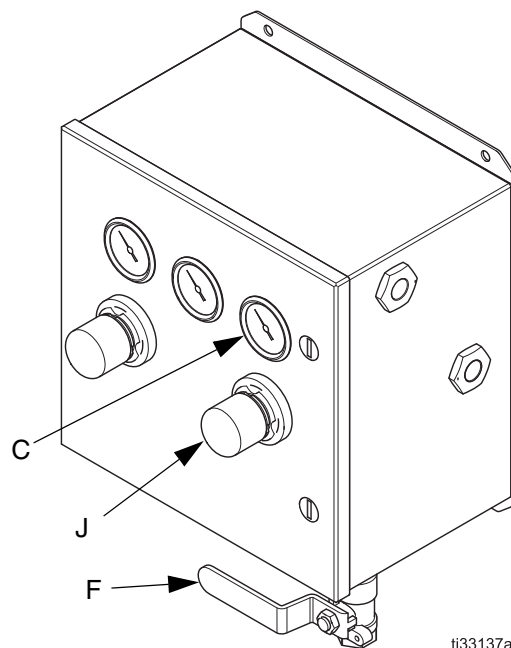
### Set Gun Pressure

Use these steps to set the atomizing air pressure at the gun during spraying.

1. Open the ball valve (F) to allow compressed air into the air control box.
2. Remove the gun from the gun flush box and close the lid.

High pressure air is delivered to the pump, and atomizing air is delivered to the gun.

3. Turn the air regulator (J) to set the desired gun pressure, displayed on the gauge (C).



**FIG. 18: Set Gun Pressure for Spraying**

**NOTE:** While spraying paint, the gauge (C) displays the actual atomizing air pressure to the gun. You can turn the air regulator (J) to adjust the atomizing air pressure. See **Adjusting Spray Pressure**, page 20.

## Set Pump Fill and Flush Pressure

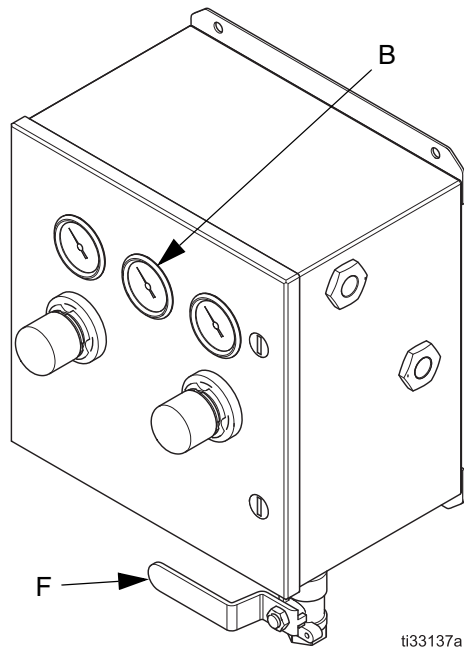
Use these steps to set the air pressure at the pump when filling the gun with paint and when flushing the gun. The regulator for filling and flushing is located inside the air control box and is intended to be set before starting to spray and left alone during spraying.

Fill and flush pressure is typically set to approximately 20 psi or the minimum needed to cycle the pump.

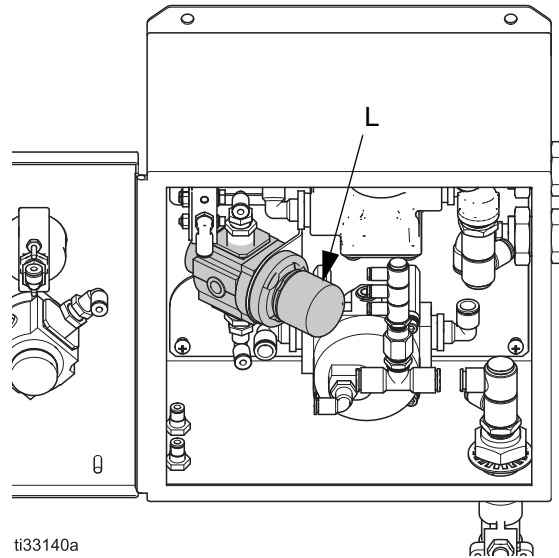
1. Open the ball valve (F) to allow compressed air into the air control box.
2. Insert the gun into the gun holder, inside the gun flush box, and close the lid.

Low pressure air is delivered to the pump, and atomizing air to the gun is locked out. The current low pressure setting is displayed on the gauge (B).

3. Open the air control box door. Turn the regulator (L) to set the fill and flush pressure, displayed on gauge (B).
4. Close and secure the air control box door.



ti33137a



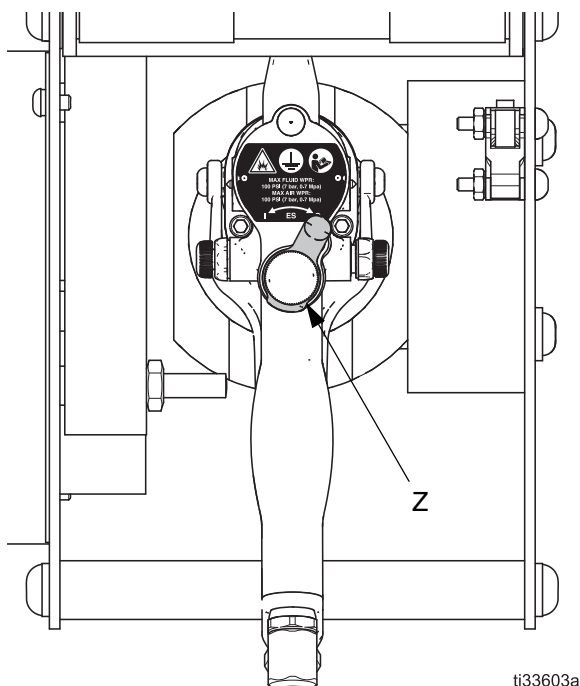
ti33140a

**FIG. 20: Pump Pressure for Filling and Flushing**

**FIG. 19: Set Pump Pressure for Spraying**

## Filling the Gun

1. Place the pump's siphon tube in a bucket of paint.
2. If using an electrostatic gun, turn off the electrostatics (Z) before placing the gun in the gun flush box.



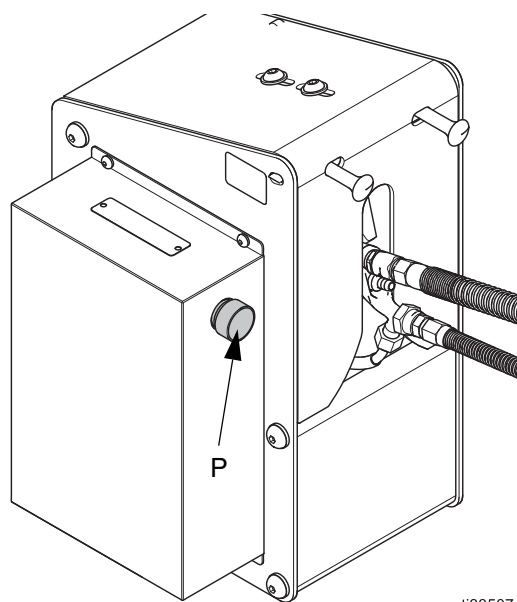
**FIG. 21: Turn Electrostatics Off Before Flushing**

3. Insert the gun into the gun holder, inside the gun flush box, and close the lid.

This signals the air control box to shut off atomizing air to the gun and to reduce pressure to the pump.

4. Trigger the gun by pressing and holding the trigger button (P) on the gun flush box.

**NOTE:** An interlock switch prevents the trigger button from being actuated when the lid of the gun flush box is open, or if no gun is inserted inside the gun flush box.



ti33507a

**FIG. 22: Gun Flush Box Trigger Button**

5. Observe the material coming out of the waste tube of the gun flush box. Stop the fill process by releasing the trigger button when paint is coming out of the fluid outlet tube into the waste container.
6. Monitor the system during the filling and flushing process.
7. Remove the gun from the gun flush box, and leave the lid open until you are ready to begin painting.

Atomizing air to the gun remains shut off, and the pressure to the pump remains reduced.

8. See **Spraying**, page 20, when ready to begin spraying.

## Spraying

1. Complete **Filling the Gun**, page 19.
2. Close the gun flush box lid.

Closing the lid signals the air control box to increase pressure to the pump and to allow air to the gun for atomization and electrostatics.

3. Turn on electrostatics, if used.
4. Trigger the gun to spray the paint.

While spraying, adjust pump or gun pressure if needed. See **Adjusting Spray Pressure**, 20.

5. See **Flushing the Gun**, page 21, when ready to flush paint from the gun.

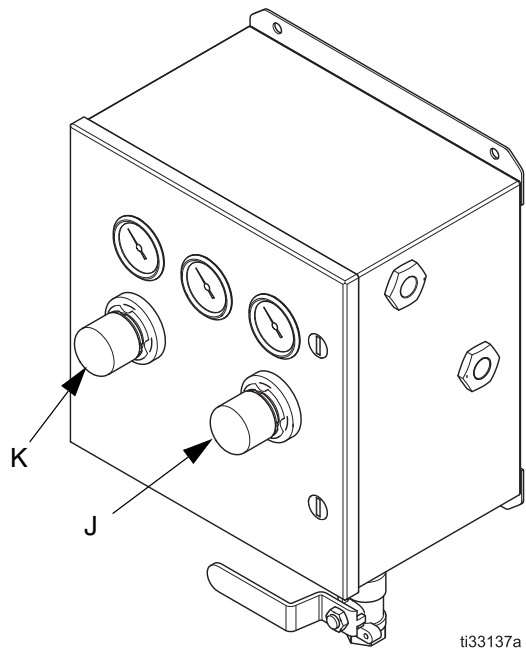
## Adjusting Spray Pressure

While spraying, you can influence the result by adjusting air pressure to the gun and to the pump.

**Adjust Gun Pressure:** Turn the regulator (J) to increase or decrease the atomizing air pressure at the spray gun.




**NOTE:** Maximum fluid pressure to the gun is limited by the pump pressure setting. If needed, continue by adjusting the pump pressure.

**Adjust Pump Pressure:** Turn the regulator (K) to increase or decrease the air pressure used to drive the pump.



**FIG. 23: Set Gun Pressure for Spraying**

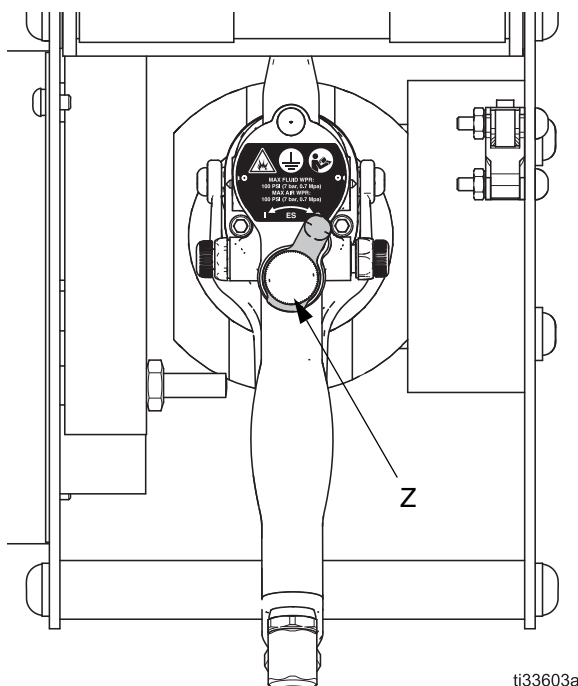
## Flushing the Gun

				
Opening and closing the gun flush box lid could pinch or cut fingers or other body parts. Be careful when pressing or releasing the latch knobs and keep clear of the closing lid.				

1. Open the lid of the gun flush box.

Opening the lid signals the air control box to shut off atomizing air to the gun and to reduce pressure to the pump.

2. If using an electrostatic gun, turn off the electrostatics (Z) before placing the gun in the gun flush box.



ti33603a

**FIG. 24: Turn Electrostatics Off Before Flushing**

3. Place the pump's siphon hose in a bucket of solvent.
4. Insert the gun into the gun holder, inside the gun flush box, and close the lid.

Atomizing air to the gun remains shut off, and the pressure to the pump remains reduced.

5. Trigger the gun by pressing and holding the trigger button on the gun flush box.

**NOTE:** An interlock switch prevents the trigger button from being actuated when the lid of the gun flush box is open, or if no gun is inserted inside the gun flush box.

6. Observe the material coming out of the fluid outlet tube on the gun flush box. Stop the flushing process by releasing the trigger button when solvent is coming out of the tube.
7. Monitor the system during the filling and flushing process.
8. Leave the gun inside the gun flush box until you are ready to fill the gun with paint again.

# Maintenance

	Daily	Weekly	Every two weeks, minimum
<b>Air Control Box Enclosure</b>		Clean the inside and outside of the enclosure with a compatible solvent.	
<b>Gun Flush Box Enclosure</b>	Keep the inside as clean as possible. Clean with a compatible solvent.	Clean the inside and outside of the enclosure with a compatible solvent.	
<b>Lid</b>	Keep hinge holes as clean as possible.		Grease hinges.
<b>Cylinders</b>			Pull the cylinder rod forward and coat with grease or petroleum jelly.
<b>Switches</b>			Clean and lubricate.
<b>Fluid Outlet Pipe</b>		Check for buildup of mixed material and replace if restricted.	

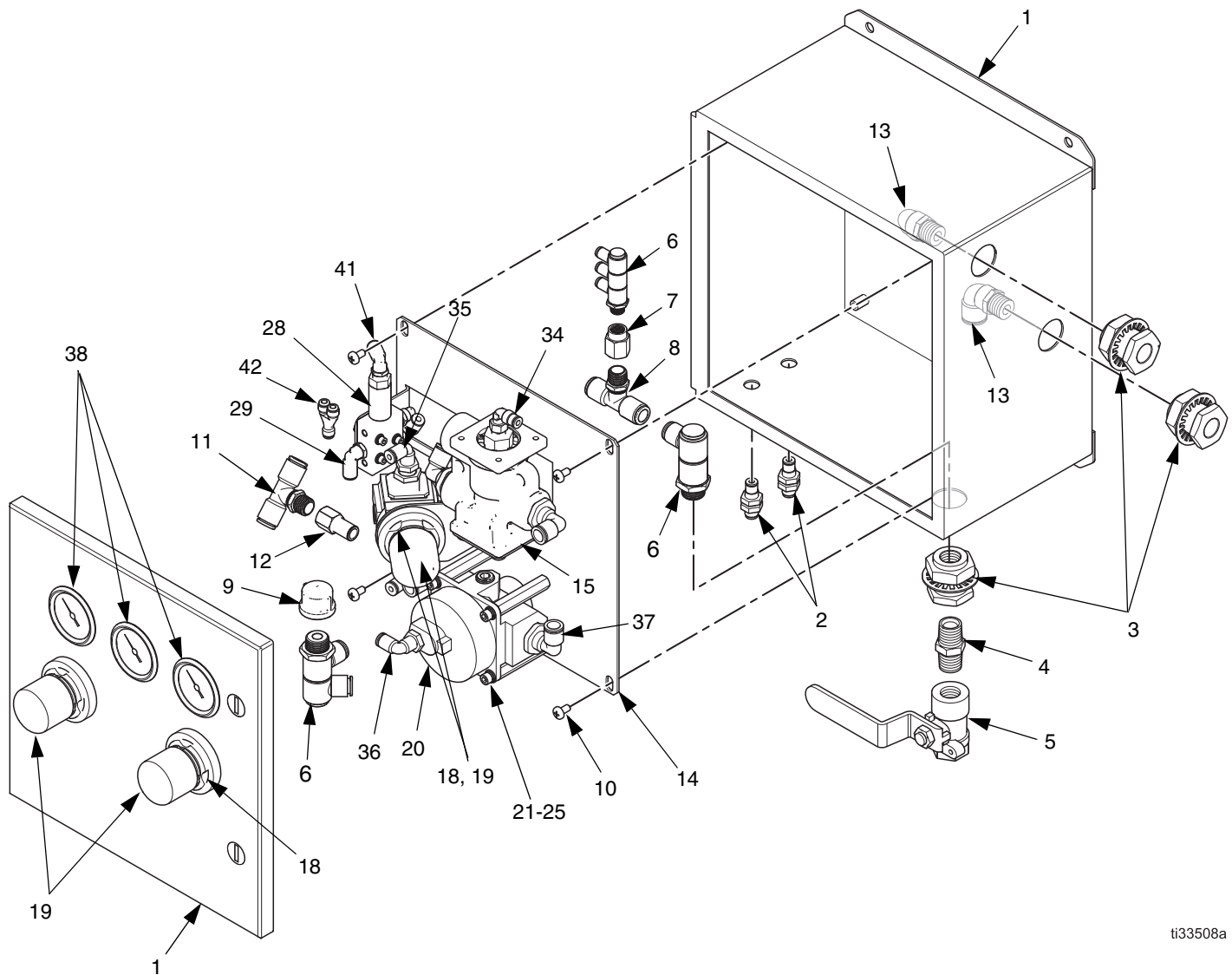
# Troubleshooting



Problem	Cause	Solution
The gun trigger does not open when the trigger button is pushed.	The air is shut off.	Turn on the system air.
	The gun trigger button is not activating.	Test the button. Replace if damaged.
	The tubing is not installed correctly.	Check the tubing connections, page 14.
	The cylinder is dirty or damaged.	Clean the cylinder rod or replace it.
	The gun is not set properly in the gun holder.	Check to make sure the gun holder is not obstructed by buildup.
	The lower cylinder is out of adjustment.	Adjust the cylinder block. See Trigger Height Adjustment, page 15.
	The gun switch is not activating.	Test the switch. Replace if damaged.
	The door switch is not activating.	Test switch. Replace if damaged.
The gun is out of the gun flush box with the door closed but the atomizing air is off.	Door switch or gun switch failure.	Check the switches and replace if necessary.
	No air flow to the gun flush box.	Check the air supply and tubing.
	Atomizing air valve is not opening.	Check the valve and replace if necessary.
The gun is out of the gun flush box with the door closed but the pump pressure is low.	Door switch or gun switch failure.	Check the switches and replace if necessary.
	No air flow to the gun flush box.	Check the air supply and tubing.
	The 4-way valve is not functioning.	Check the valve and replace if necessary.

# Parts

## Air Control Box, 25D594



ti33508a

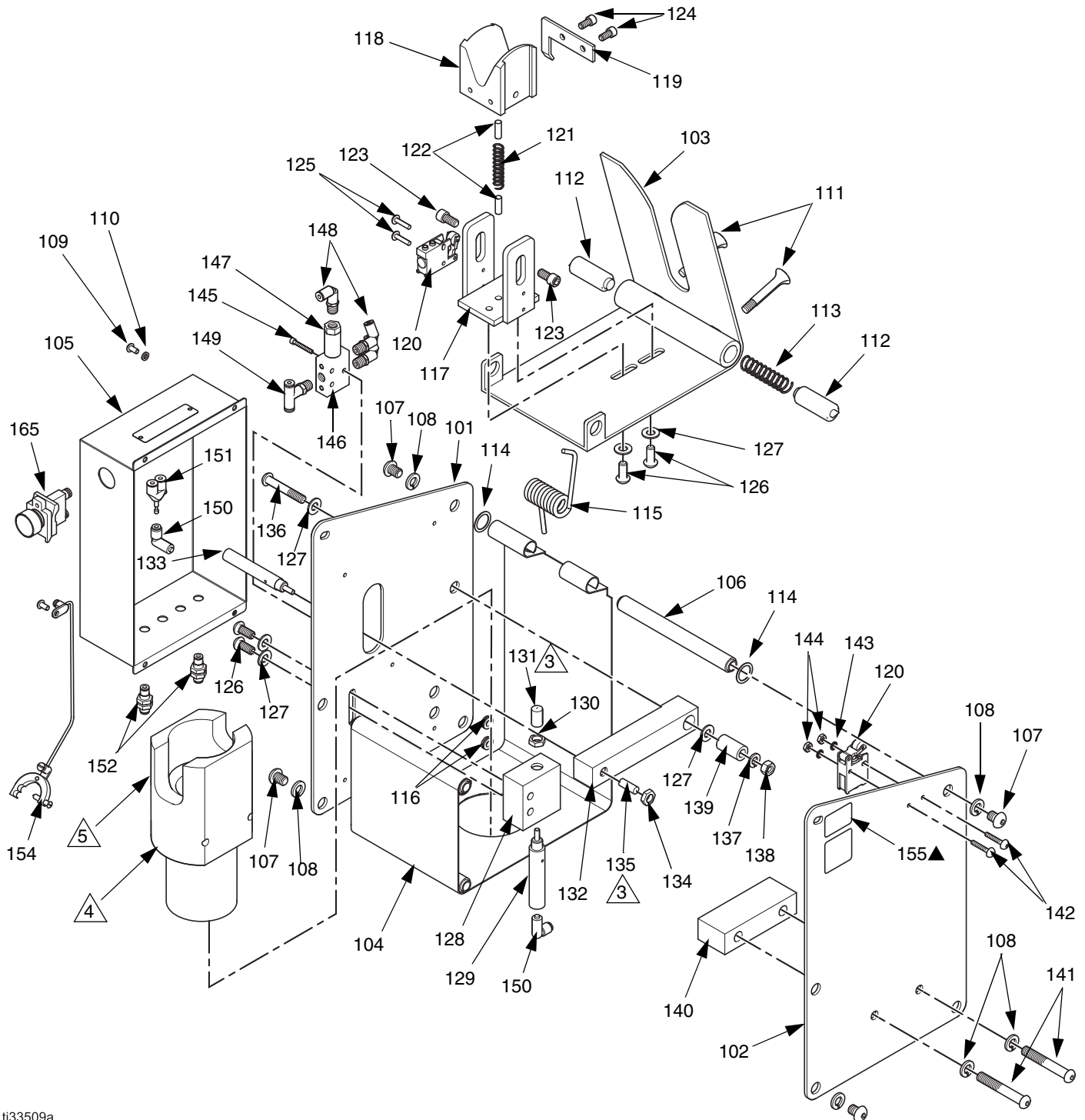


Ref.	Part	Description	Qty.
1	---	BOX, air control	1
2	---	FITTING, pneumatic push-in, M10 x 1 x 5/32 in. tube	2
3	16N177	FITTING, bulkhead, brass, 3/8 in. NPT (f)	3
4	156849	PIPE, nipple	1
5	114362	VALVE, ball, brass body, 3/8-18 NPT	1
6	---	MANIFOLD, 3/8 PTC to 3/8 NPT	2
7	---	FITTING, 1/4 NPT(f) to 1/8 NPT(f)	1
8	---	MANIFOLD, 1/8 NPT to 5/32 PTC	1
9	---	CAP, 3/8 NPT	1
10	---	SCREW, CRBH	4
11	---	FITTING, tee, 3/8 PTC to 1/4 NPT	2
12	---	ADAPTER, 5/16 PTC to 1/8 NPT	1
13	16F151	FITTING, elbow, swivel, pneumatic push-in, 3/8 in. tube	4
14	---	PLATE, air control box	1
15	104632	VALVE, piloted	1
16	---	WASHER, lock, 1/4 in.	2
17	136192	SCREW, button head, 1/4-20 x 0.50 cap	2
18	116514	NUT, regulator	3
19	15T539	REGULATOR, air, 5-150 psi, 3/8 NPT	3
20	120435	REGULATOR, air, remote piloted, self relieving	1
21	---	NUT, lock	4
22	---	SPACER, hex, 10-32, standoff	4
23	---	WASHER, flat, no. 10	4
24	---	WASHER, lock	4
25	---	SCREW, cap, socket head, 10-32 x 5/8 in. SHCS	4

Ref.	Part	Description	Qty.
26	---	SCREW, set, socket head, 1/4 in. NPT	2
27	502473	VALVE, air, 4-way push button, 1/8 NPT	1
28	501014	ACTUATOR, air, 1/8 NPT (f)	1
29	198171	FITTING, elbow	2
30	---	WASHER, backup	4
31	---	WASHER, lock, #6	4
32	---	SCREW, socket head, 6-32	4
33	---	NUT, lock, 6-32	4
34	114151	FITTING, elbow, male, swivel	1
35	119030	FITTING, reducer	4
36	15T937	FITTING, elbow, swivel, 1/4 NPT x 5/32 T	4
37	C38211	FITTING, tube	4
38	128260	GAUGE, panel mount, 0-100 psi	3
39	15T498	FITTING, elbow, swivel, 1/8 NPT x 5/32 T	3
40	17W596	LABEL, air control	1
41	---	FITTING, tube, elbow, 5/16 in. tube x 1/8 NPT (m)	1
42	---	FITTING, Y, splitter, 5/32 in. tube	1
43	---	TUBE, polyethelyne, 0.375 OD, 3.8 feet	1
44	598095	TUBE, nylon, 5/32 in. OD, 8.5 feet	1

--- Item not available separately.

# Gun Flush Box, 25D986



ti33509a

**NOTE:** Grease all cylinders and sensors with grease.

3

Clean threads thoroughly before applying. Use a primer to expedite drying. Apply Loctite® 2760 or equivalent adhesive to female threads. Be careful not to scratch cylinder. Wipe excess adhesive.

4

Optional Gun Holder shown; not included with assembly. **Selection of correct gun holder required for proper operation.**

5

Install deeper cut portion of adaptor towards the front of the flush box to accommodate trigger, allowing lid to close. Only applies with 85 kV electrostatic gun.

Ref.	Part	Description	Qty.
101	196709	PANEL, cabinet, left	1
102	196710	PANEL, cabinet, right	1
103	196711	LID, cabinet	1
104	196712	WRAPPER, cabinet	1
105	17V788	COVER, cylinder	1
106	626488	ROD, connecting	4
107	551789	SCREW, cap, 3/8 x 1 in.	8
108	103975	WASHER, lock, 3/8	10
109	551787	SCREW, cap, 10-32 x 0.38 in.	4
110	551788	WASHER, lock, split, no. 10	4
111	626495	KNOB, latch	2
112	626496	PIN, latch	2
113	116174	SPRING, compression, 3.5 in.	1
114	551891	WASHER, 21/32 ID x 7/8 OD	2
115	196844	SPRING, torsion	1
116	551849	GROMMET, 5/16 ID x 1/2 OD	3
117	196703	SUPPORT, yoke, upper	1
118	196700	YOKE, gun, upper	1
119	196704	SWITCH, flag	1
120	116172	SWITCH, limit, pneumatic	2
121	116173	SPRING, compression, 2.5 in.	1
122	116193	PIN, dowel	2
123	108751	SCREW, cap, socket hd, 5/16 x 0.625 in.	2
124	C19800	SCREW, cap, socket hd, 1/4-20 x 0.5 in.	2
125	112598	SCREW, machine, truss hd, 8-32 x 0.75 in.	2
126	112944	SCREW, cap, button hd, 5/16 x 0.75 in.	4
127	104034	WASHER, plain, 5/16	6
128	626502	BLOCK, cylinder	1
129	551794	CYLINDER, air, 0.568 in. dia.	1
130	551795	NUT, hex head, 7/16-20	1
131	626504	BUTTON, cylinder	1

Ref.	Part	Description	Qty.
132	196708	ARM, lever	1
133	551793	CYLINDER, air, 0.438 in. dia.	1
134	551890	NUT, jam, hex, 3/8-24	1
135	626523	BUTTON, small cylinder	1
136	551786	SCREW, cap, button hd, 5/16 x 2 in.	1
137	107542	WASHER, lock, split, no. 8	1
138	108946	NUT, hex, 5/16-18	1
139	626517	AXLE, support	1
140	196766	BRACKET, mounting	1
141	116194	SCREW, cap, button hd, 3/8-16 x 2.5 in.	2
142	116195	SCREW, cap, button hd, 8/32 x 1 in.	2
143	157021	WASHER, lock, internal tooth, no. 8	2
144	102931	NUT, machine, hex, 8-32	2
145	C19964	SCREW, cap, 6-32 x 1 in.	1
146	502473	VALVE, air, 4-way, spring return	1
147	501014	ACTUATOR, air, 1/8 npt(f)	1
148	598140	ELBOW, 5/32 tube x 1/8 npt(m)	3
149	598141	TEE, 5/32 tube x 1/8 npt	1
150	514581	CONNECTOR, 5/32 in. tube x 10-32	2
151	514896	TEE, 3-way, 5/32 OD (m x f)	1
152	113284	FITTING, pneumatic push-in, M10 x 1 x 5/32 in. tube	2
153	551731	TUBE, 5/32 OD, polyethelyne, white	1
154	222011	CLAMP, grounding	1
155▲	180233	LABEL, warning, pinch point	2
157	C78216	CLAMP, Ty-Rap	1
158	103473	STRAP, tie; wire	1
165	16V730	BUTTON, pneumatic, push	1

--- Item not available separately.

▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.

☆ Order length needed.

# Accessories

## Gun Holder

Part No.	Description
198405	Graco Pro™ Xs3, Pro™ Xs4
198787	Graco Pro™ Xs2
196769	Graco Delta Spray™ Gun
196770	Graco Alpha Gun
196771	Graco Alpha Plus, Alpha Plus with RAC Tip
196767	Devilbiss JGA/MSA*
15T646	Graco AirPro™ Gun
15G093	Graco G15 AA Gun
15G346	Graco G40 AA Gun
24N528 ‡	Graco Pro Xp™ 60 & 85 kV Gun
24N529	Graco Pro Xp™ 40 kV Gun

\* Brand names or marks are used for identification purposes and are trademarks of their respective owners.

‡ Includes yoke.

## Mounting Kits

Part No.	Description
17V256	Air Control Box Mount Kit: For mounting the air control box to a wall or a stand.
17V257	Gun Flush Box Mount Kit: For mounting the gun flush box to a wall or a stand.

# Technical Specifications

Air Control Box		
	US	Metric
Maximum Air Inlet Pressure	100 psi	(0.7 MPa, 7 bar)
Height	14 in.	356 mm
Width	7 in.	178 mm
With door open	21 in.	533 mm
Length	11in.	279 mm
Noise (dBa)		
Maximum sound pressure	< 80 dBa @ 70 psi (0.48 MPa, 4.8 bar)	
Inlet/Outlet Sizes		
Main air inlet	3/8-18 npt(f)	
Air outlets to pump and gun	3/8 in. npt(f)	
Pneumatic tube fittings	Push-in type, for 5/32 in. OD tubing	
Weight		
	22 lbs.	9.6 kg

Gun Flush Box Module		
	US	Metric
Maximum Air Inlet Pressure	100 psi	(0.7 MPa, 7 bar)
Height	14 in.	356 mm
With lid open	21 in.	533 mm
Width	7 in.	178 mm
Length	11in.	279 mm
Inlet/Outlet Sizes		
Outlet	2 in. npt(f)	
Materials of Construction		
Wetted materials	Stainless steel, nylon, ultra high molecular weight polyethylene	
Weight		
	22 lbs.	9.6 kg

# Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale 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**

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

## Graco Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

For patent information, see [www.graco.com/patents](http://www.graco.com/patents).

**TO PLACE AN ORDER**, contact your Graco distributor or call to identify the nearest distributor.  
**Phone:** 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

*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.*

Original instructions. This manual contains English. MM 3A5590

**Graco Headquarters:** Minneapolis

**International Offices:** Belgium, China, Japan, Korea

**GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA**  
**Copyright 2018, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.**

[www.graco.com](http://www.graco.com)  
Revision A, May 2018