

# Pressure Cups

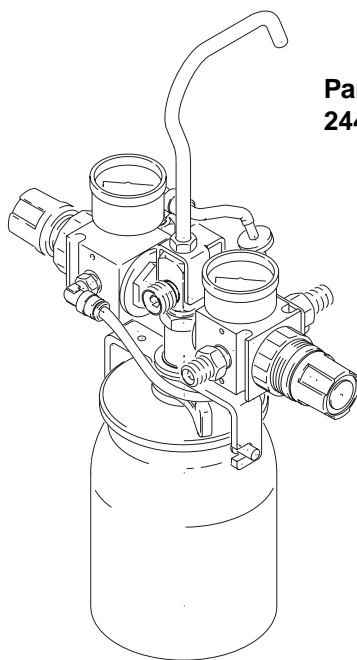
309361 rev. F

## **Part No. 244731, Series A, 1 Quart Size**

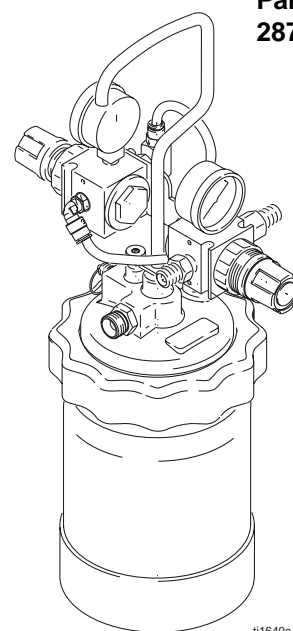
*20 psi (0.14 MPa, 1.4 bar) Maximum Working Fluid Pressure*

## **Part No. 287301, Series A, 2 Quart Size**

*50 psi (0.35 MPa, 3.5 bar) Maximum Working Fluid Pressure*



**Part No.  
244731**



**Part No.  
287301**

ti1640c

PROVEN QUALITY. LEADING TECHNOLOGY.

# Preparation for Operation

## **WARNING**

### **Halogenated Hydrocarbon Hazard**

Never use 1, 1, 1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious injury, and/or substantial property damage.

Consult your fluid suppliers to ensure that the fluids being used are compatible with aluminum parts.

Prepare the paint or other coating according to the manufacturer's instructions. Strain the paint through a fine nylon mesh bag, available at paint dealers. Fill the cup (A) with paint and fasten the lid securely.

## **WARNING**

### **Fire, Explosion, and Electric Shock Hazard**



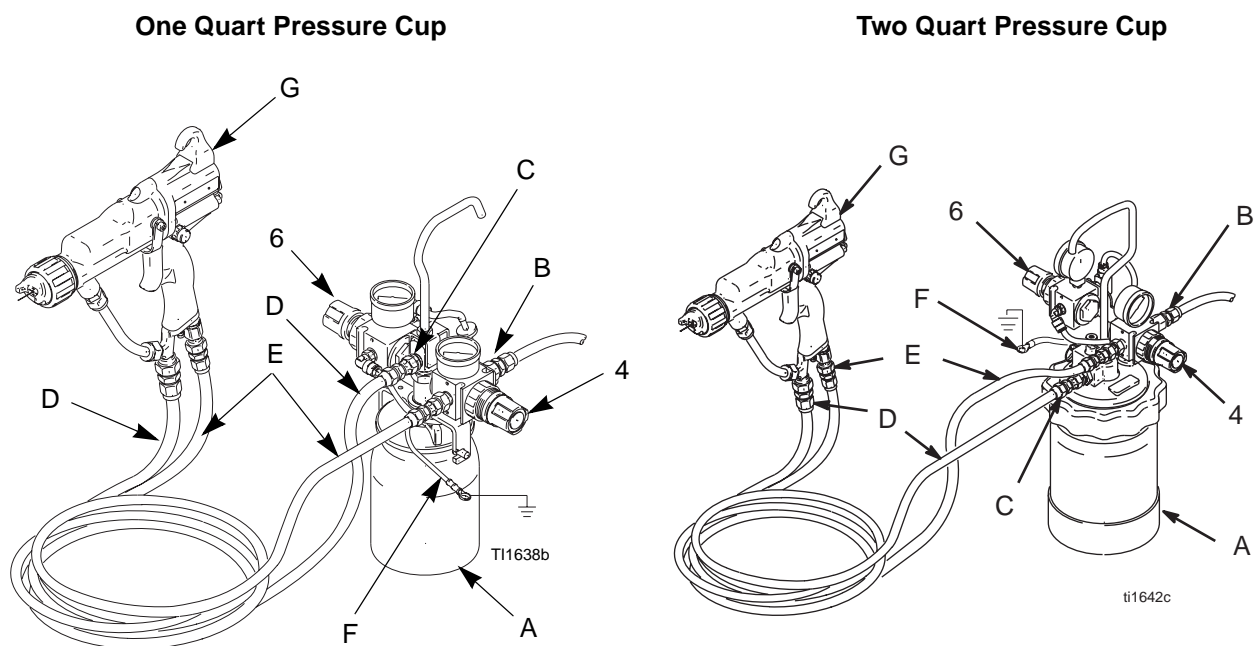
When using the pressure cup with an electrostatic spray gun, connect the Graco Grounded Air Supply Hose between the gun air fitting on the pressure cup and the gun's air inlet. The electrostatic gun air inlet has a left-hand thread. Connect the air supply hose ground wire to a true earth ground.

Connect the air (E) and fluid (D) hoses as shown in FIG. 1. On electrostatic guns, connect the air hose ground wire (F) to a true earth ground.

Measure the resistance between the gun air inlet fitting and a true earth ground. The resistance must be less than 1 megohm.

# Key

- |   |   |   |  |
|---|---|---|--|
| A | Pressure Cup  | F | Air Hose Ground Wire (used on electrostatic guns only) |
| B | Main Air Inlet  | G | Air Spray Gun (electrostatic gun shown)                |
| C | Fluid Outlet  | 4 | Gun Air Regulator                                      |
| D | Fluid Hose  | 6 | Cup Air Regulator                                      |
| E | Air Hose (for electrostatic guns use the grounded air hose shown) |   |  |



**Fig. 1. Typical Installation**

# Operation

## One Quart Pressure Cup

### WARNING

#### Pressurized Equipment Hazard



To reduce the risk of over-pressurizing the equipment, which could cause serious injury including splashing fluid in the eyes or on the skin, never exceed 20 psi (0.14 MPa, 1.4 bar) air pressure to the cup. The safety valve (9) is preset to relieve pressure at 20 psi (0.14 MPa, 1.4 bar). Do not alter the safety valve.

### Pressure Relief Procedure

### WARNING

#### Pressurized Equipment Hazard



The system pressure must be manually relieved to prevent the equipment from starting or spraying accidentally. To reduce the risk of an injury from accidental spray from the gun or splashing fluid, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure
- stop spraying
- check or service any of the system equipment
- or disconnect any of the system equipment.

2. Turn off the gun air regulator (4) and the cup air regulator (6).
3. Trigger the gun into a grounded metal waste container to relieve the fluid pressure.
4. Place the cup on a table and slowly release the clamp lever (3b) to bleed off pressure in the cup. Be sure to return the clamp lever to the locked position before turning the gun regulator on again.

### Daily Setup

1. Fill the cup (2) with fluid. Fasten the lid (3) securely.
2. Turn on the main air supply.
3. Set the gun air regulator (4) to 40 psi (0.28 MPa, 2.8 bar) while spraying. Push the knob in to lock the regulator, pull out to unlock.
4. Set the cup air regulator (6) to 10 psi (0.07 MPa, 0.7 bar). Push the knob in to lock the regulator, pull out to unlock.
5. Spray a test panel. If the paint is not fully atomized, either decrease the fluid pressure using the cup air regulator or increase the setting of the gun air regulator.  
To decrease the cup fluid pressure, turn the cup air regulator knob counterclockwise incrementally until you get the desired results.

Always use the lowest possible pressure needed to achieve the desired results.

1. On electrostatic guns only, turn the ES ON/OFF valve OFF.

# Operation

## Two Quart Pressure Cup

### WARNING

#### Pressurized Equipment Hazard



To reduce the risk of over-pressurizing the equipment, which could cause serious injury including splashing fluid in the eyes or on the skin, never exceed 50 psi (0.35 MPa, 3.5 bar) air pressure to the cup. The safety valve (9) is preset to relieve pressure at 50 psi (0.35 MPa, 3.5 bar). Do not alter the safety valve.

### Pressure Relief Procedure

### WARNING

#### Pressurized Equipment Hazard



The system pressure must be manually relieved to prevent the equipment from starting or spraying accidentally. To reduce the risk of an injury from accidental spray from the gun or splashing fluid, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure
- stop spraying
- check or service any of the system equipment
- or disconnect any of the system equipment.

1. On electrostatic guns only, turn the ES ON/OFF valve OFF.

2. Turn off the gun air regulator (2) and the cup air regulator (10).
3. Open the pressure relief valve all the way (counterclockwise) to bleed off pressure in the cup.
4. Trigger the gun into a grounded metal waste container to relieve the fluid pressure.
5. Place the cup on a table and slowly unscrew the lid.

### Daily Setup

1. Fill the cup (1) with fluid. Fasten the lid securely.
2. Turn on the main air supply.
3. Turn the pressure relief valve fully clockwise.
4. Set the gun air regulator (2) to 40 psi (0.28 MPa, 2.8 bar) while spraying. Push the knob in to lock the regulator, pull out to unlock.
5. Set the cup air regulator (10) to 10 psi (.07 MPa, 0.7 bar). Push the knob in to lock the regulator, pull out to unlock.
6. Spray a test panel. If the paint is not fully atomized, either decrease the fluid pressure using the cup air regulator or increase the setting of the gun air regulator.  
To decrease the cup fluid pressure, turn the cup air regulator knob counterclockwise incrementally until you get the desired results.

Always use the lowest possible pressure needed to achieve the desired results.

# Cleaning

## One Quart Pressure Cup

### CAUTION

To avoid damage to the air regulator diaphragms, do not clean the air regulators in a gun washer or use any cleaning method which allows solvent to enter the regulator.

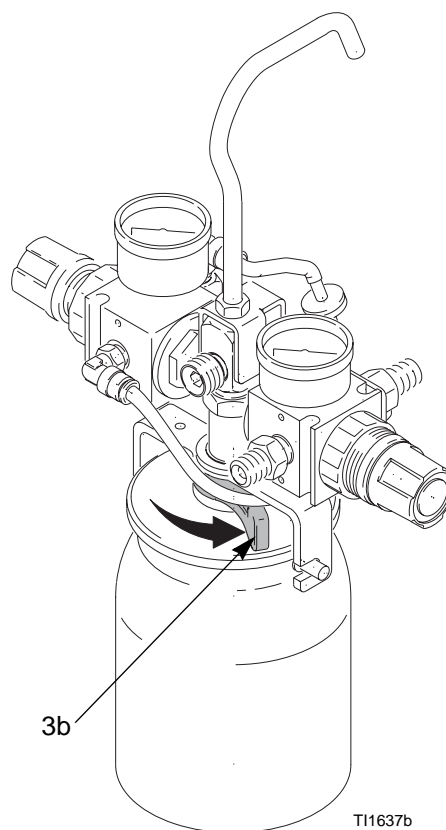
1. Relieve the pressure, page 4.
2. Push the clamp lever (3b) to the unclamped position, against the yoke. See FIG. 2.
3. Twist the lid counterclockwise to disengage it. Remove the lid.
4. Clean the lid and the cup, using a compatible solvent.

### CAUTION

To avoid swelling of the gasket (3g), do not soak the gasket or expose it to solvent for a prolonged period when cleaning the pressure cup lid.

5. Fill the cup with clean solvent and replace the lid.
6. Set the cup air regulator at 10 psi (.07 MPa, 0.7 bar) and spray into a waste container until clean solvent comes from the gun.
7. Relieve the pressure.

8. Remove the solvent from the cup and wipe the equipment with a solvent dampened rag.
9. Assemble the empty cup and set the cup air regulator to 10 psi (.07 MPa, 0.7 bar). Spray the gun into a waste container until all the solvent is purged.
10. Relieve the pressure.



**Fig. 2: One Quart Pressure Cup**

# Cleaning

## Two Quart Pressure Cup

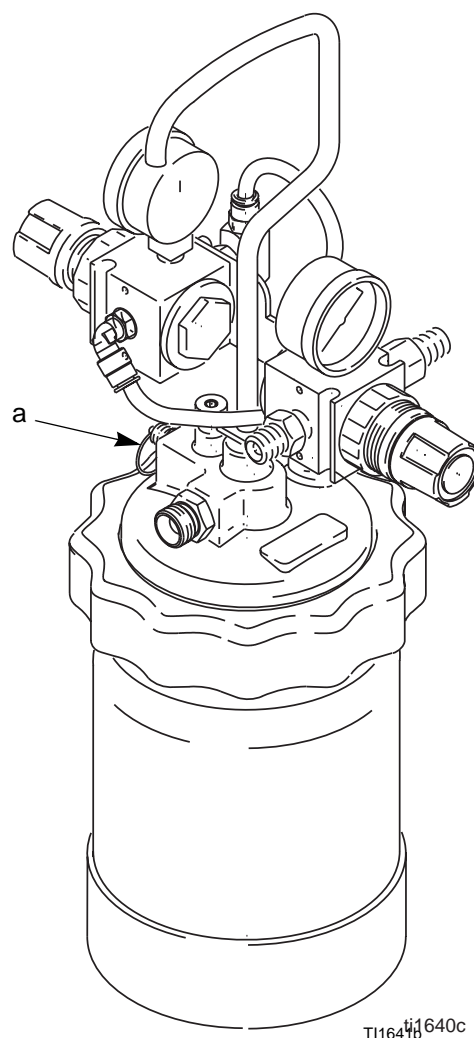
### ! CAUTION

To avoid damage to the air regulator diaphragms, do not clean the air regulators in a gun washer or use any cleaning method which allows solvent to enter the regulator.

1. Relieve the pressure, page 4. On electrostatic guns, turn the ES ON/OFF valve OFF.
2. Empty the paint from the cup and clean the cup and lid with a compatible solvent.
3. Inspect the lid gasket. Replace if damaged. When replacing the gasket, remove the old adhesive from inside the lid. Apply new adhesive (3M #847 Scotch-Grip® or equivalent) to the lid when installing the new gasket.
4. Fill the cup with clean solvent, replace the lid, and close the pressure relief valve (a). See FIG. 3.
5. Set the cup air regulator at 10 psi (.07 MPa, 0.7 bar) and spray into a waste container until clean solvent comes from the gun.
6. Relieve the pressure.
7. Remove the solvent from the cup and wipe the equipment with a solvent dampened rag.
8. Assemble the empty cup and set the cup air regulator to 10 psi (.07 MPa, 0.7 bar). Spray the gun into a waste container until all the solvent is purged.
9. Relieve the pressure.

### ! CAUTION

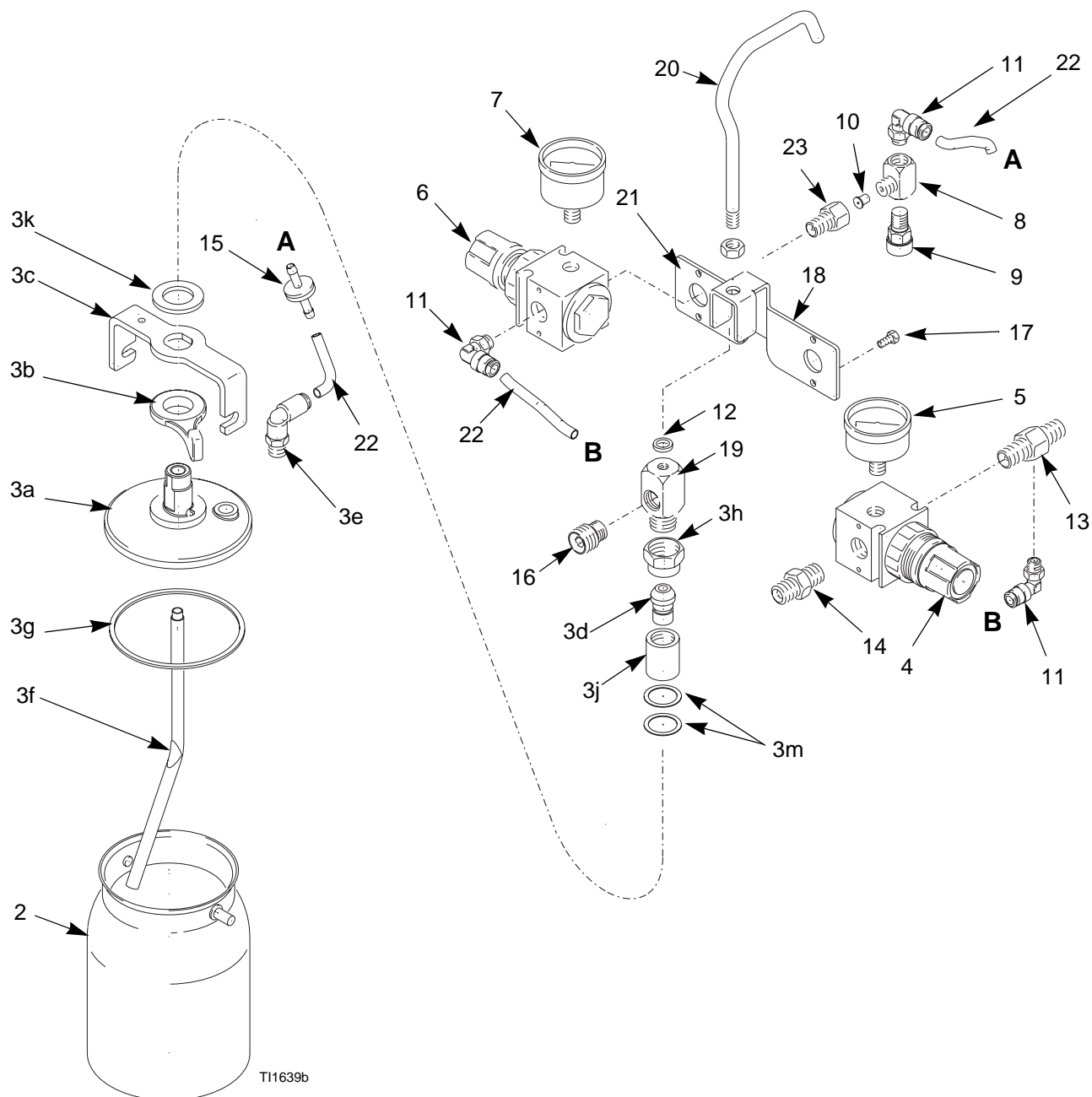
To avoid swelling of the gasket, do not soak the gasket or expose it to solvent for a prolonged period when cleaning the pressure cup lid.



**Fig. 3: Two Quart Pressure Cup**

# Parts

## Part No. 244731 Pressure Cup (1 Quart)





Ref. No.	Part No.	Description	Qty	Ref. No.	Part No.	Description	Qty
1	245345	CUP, pressure; includes items 2 and 3	1	7	111500	GAUGE, pressure, air, cup	1
2	239727	. CUP, bare	1	8	110440	TEE	1
3	245344	. LID; includes items 3a-3m	1	9	112059	VALVE, safety	1
3a	190170	. . LID, bare	1	10	189557	RESTRICTOR, air	1
3b	276499	. . LEVER, clamp	1	11	112698	ELBOW	3
3c	192330	. . YOKE, lid	1	12	104008	WASHER, lock	1
3d	189909	. . SEAT	1	13	183696	TEE	1
3e	112781	. . ELBOW, swivel	1	14	156971	NIPPLE	1
3f	189882	. . TUBE, fluid	1	15	M71256	VALVE, check	1
3g	189883	. . GASKET, lid	1	16	172682	ADAPTER, hose	1
3h	190033	. . NUT, adapter union	1	17	112788	SCREW, cap, socket hd	4
3j	190375	. . SLEEVE, cup	1	18	198784	BRACKET	1
3k	154628	. . WASHER	1	19	172680	ELBOW	1
3m	116947	. . WASHER, wave	2	20	172620	HANDLE	1
4	111804	REGULATOR, air, gun	1	21	100188	NUT, hex	1
5	108190	GAUGE, pressure, air, gun	1	22	054720	TUBE, polyurethane; 1/4 in. (6 mm) OD	10 in.
6	116904	REGULATOR, air, pressure cup	1	23	117243	ADAPTER, hex pipe	1

## Technical Data (Model 244731)

### Category

Maximum Working Fluid Pressure

Air inlet fitting

Diameter

Overall Height

Weight

Wetted Parts

### Data

20 psi (0.14 MPa, 1.4 bar)

1/4 npt(m)

5.25 in. (133 mm)

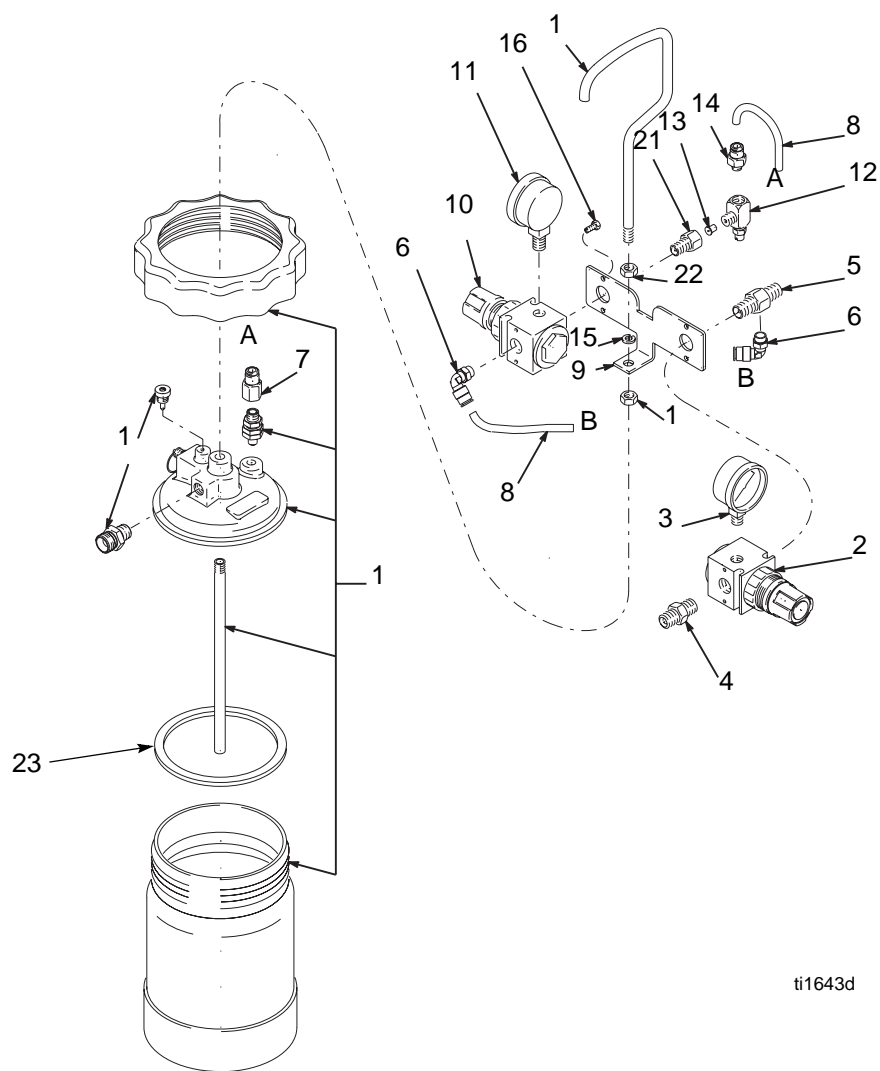
17.75 in. (451 mm)

4 lb (1.8 kg)

Nylon, Aluminum, Polyethylene, Stainless Steel

*Scotch-Grip® is a registered trademark of the 3M Company.*

**Part No. 287301 Pressure Cup (2 Quart)**



Ref. No.	Part No.	Description	Qty	Ref. No.	Part No.	Description	Qty
1	287302	CUP, pressure 2 qt.	1	10	116903	REGULATOR, air	1
2	111804	REGULATOR, air, gun	1	11	104655	GAUGE, pressure, air, cup	1
3	110436	GAUGE, pressure, air	1	12	110440	TEE, branch, male, 1/8 npt	1
4	156971	NIPPLE, short	1	13	189557	RESTRICTOR, air, regulator	1
5	183696	FITTING, tee	1	14	115671	FITTING, connector, male	1
6	112698	ELBOW, male, swivel	2	15	100133	WASHER, lock	1
7	114320	FITTING, connector, female, 1/8 npt	1	16	112788	SCREW, cap, socket hd	4
8	054720	TUBE, polyurethane,	0.830 ft.	21	117243	FITTING, adapter, 1/8 x 1/8 nptf	1
				22	100340	NUT	1
				23	15F346	GASKET, 2-qt, CV-75	1
9	198783	BRACKET, pressure cup, 2 qt.	1				

## Technical Data (Model 287301)

### Category

Maximum Working Fluid Pressure  
Air inlet fitting  
Diameter  
Overall Height  
Weight  
Wetted Parts

### Data

50 psi (0.35 MPa, 3.5 bar)  
1/4 npt(m)  
5.25 in. (133 mm)  
17.75 in. (451 mm)  
4 lb (1.8 kg)  
Nylon, Aluminum, Polyethylene, Stainless Steel

*Scotch-Grip® is a registered trademark of the 3M Company.*

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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.

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