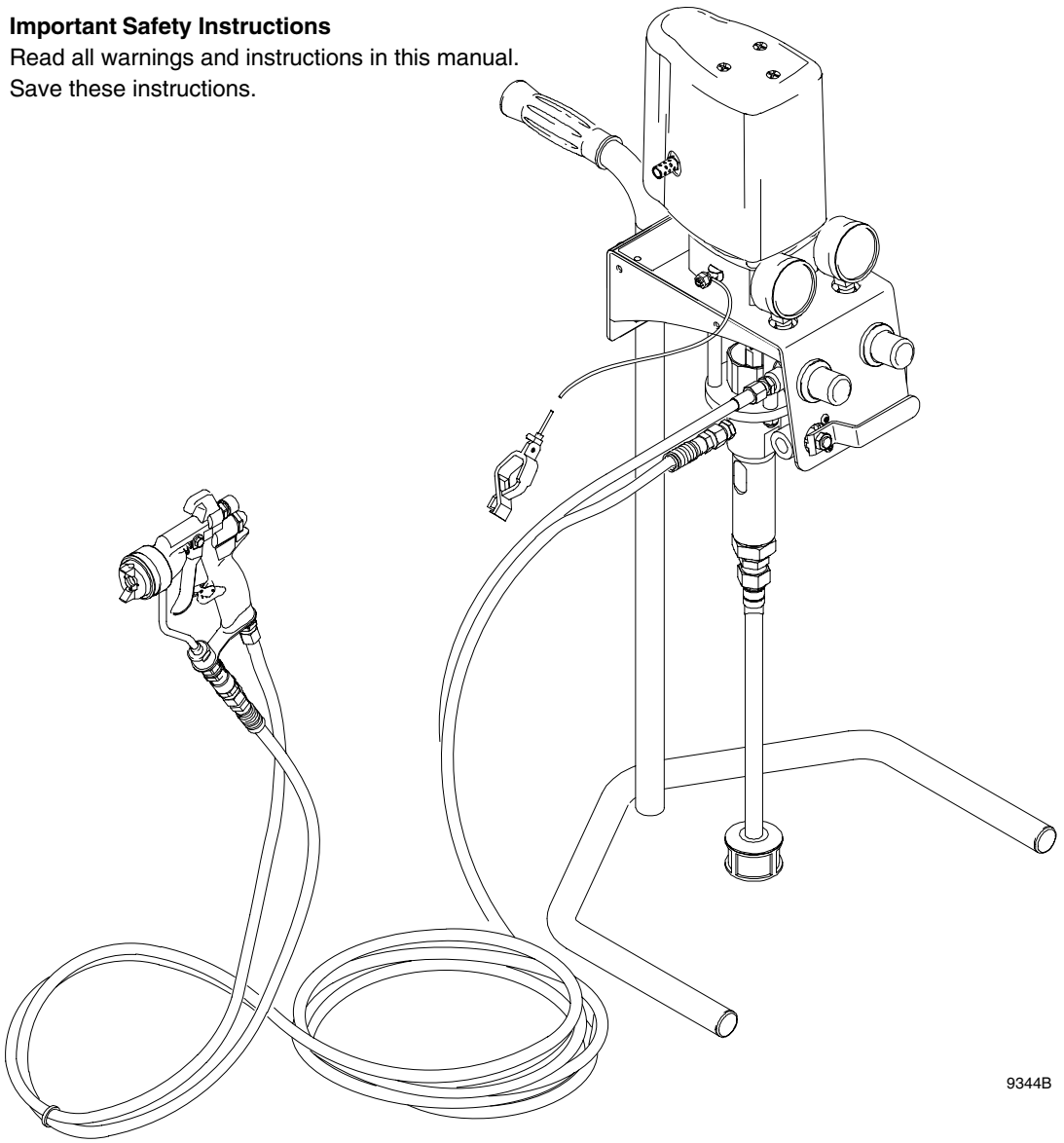
Instructions – Parts List

Parts

Falcon and Falcon II Air-Assisted Euro Packages

309022 rev.E

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.



9344B

Model 232833 Shown

PROVEN QUALITY. LEADING TECHNOLOGY.

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CE Ex II 2 G

Table of Contents

List of Models

Package Part No.	Series	Pump Model	Maximum Fluid Working Pressure	Maximum Air Input Pressure	Gun Ball/ Seat Material
232833	C	Falcon 10:1	1000 psi (6.9 MPa, 69 bar)	100 psi (0.7 MPa, 6.9 bar)	carbide
232835	B	Falcon 10:1	1000 psi (6.9 MPa, 69 bar)	100 psi (0.7 MPa, 6.9 bar)	no gun, no hoses
232836	C	Falcon II 20:1	1500 psi (10.3 MPa, 103.5 bar)	68 psi (0.5 MPa, 4.7 bar)	carbide
232838	B	Falcon II 20:1	1500 psi (10.3 MPa, 103.5 bar)	68 psi (0.5 MPa, 4.7 bar)	no gun, no hoses

Symbols

Warning Symbol

⚠ WARNING

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

Caution Symbol

⚠ CAUTION

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

⚠ WARNING

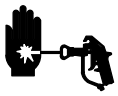
INSTRUCTIONS

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.
- Do not exceed the maximum working pressure of the lowest rated system component. Refer to the **Technical Data** on page 20 for the maximum working pressure of this equipment.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below 0°F (–18°C).
- Wear hearing protection when operating this equipment.
- Do not lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.
- Keep hands and clothing away from any moving parts.

⚠ WARNING



INJECTION HAZARD

Spray from the gun, hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate surgical treatment.**
- Do not point the gun at anyone or at any part of the body.
- Do not put your hand or fingers over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Do not “blow back” fluid; this is not an air spray system.
- Always have the tip guard and the trigger guard on the gun when spraying.
- Check the gun diffuser operation weekly. Refer to the gun manual.
- Be sure the gun trigger safety operates before spraying.
- Lock the gun trigger safety when you stop spraying.
- Follow the **Pressure Relief Procedure** on page 10 whenever you: are instructed to relieve pressure; stop spraying; clean, check, or service the equipment; and install or clean the spray tip.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.
- Use only Graco approved hoses. Do not remove any spring guard that is used to help protect the hose from rupture caused by kinks or bends near the couplings.

MOVING PARTS HAZARD

Moving parts, such as the air motor piston, can pinch or amputate your fingers.

- Keep clear of all moving parts when you start or operate the pump.
- Before you service this equipment, follow the **Pressure Relief Procedure** on page 10 to prevent the equipment from starting unexpectedly.

⚠ WARNING

FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. Refer to **Grounding** on page 9.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop spraying immediately.** Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being sprayed.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Electrically disconnect all equipment in the spray area.
- Extinguish all open flames or pilot lights in the spray area.
- Do not smoke in the spray area.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not operate a gasoline engine in the spray area.

TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

Installation

General Information

NOTE: Reference numbers and letters in parentheses in the text refer to the callouts in the figures and the parts drawing.

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.

Fig. 1 is only a guide for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to suit your particular needs.

Prepare the Operator

All persons who operate the equipment must be trained in the safe, efficient operation of all system components as well as the proper handling of all fluids. All operators must thoroughly read all instruction manuals, tags, and labels before operating the equipment.

The following manuals are included with this equipment:

311001 AA Series Spray Gun

308995 Falcon and Falcon II Air Motors

308996 Falcon and Falcon II Pumps

Prepare the Site

NOTE: The compressed air supply to the gun must be clean and dry, to prevent damage to the finish. Use a coalescing air filter in the main air supply line.

Fig. 1. Ensure that the wall is strong enough to support the weight of the pump and accessories, fluid, hoses, and stress caused during pump operation.

Ensure that you have an adequate compressed air supply.

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. The air hose (A) should have a 3/8 npt(m) thread. A quick disconnect coupling is recommended.

Install a bleed-type shutoff valve (B) in the air line to isolate the air line components for servicing. Install an air line filter (C) and a moisture trap and drain valve (D) to help remove moisture and contaminants from the compressed air supply.

Keep the site clear of any obstacles or debris that could interfere with the operator’s movement.

Have a grounded, metal pail available for use when flushing the system.

Installation

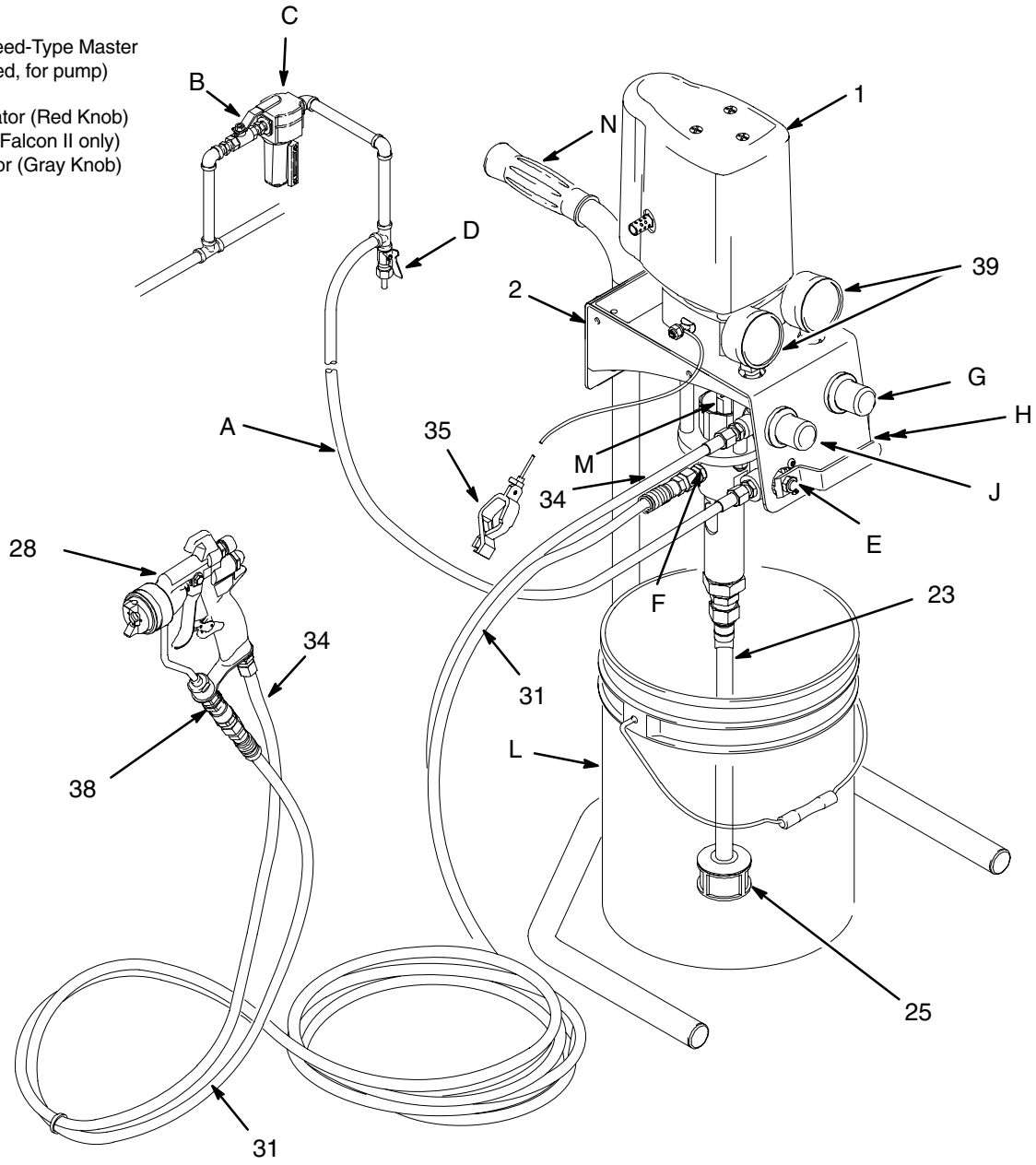
KEY

SUPPLIED COMPONENTS

1 Pump
2 Wall Bracket
23 Suction Hose
25 Strainer
28 Air-Assisted Alpha Spray Gun
31 Gun Fluid Supply Hose
34 Gun Air Supply Hose
35 Ground Wire (required; see page 9 for installation instructions)
38 Gun Swivel
39 Lens Covers
E Red-Handled Bleed-Type Master Air Valve (required, for pump)
F Pump Outlet
G Pump Air Regulator (Red Knob)
H Air Relief Valve (Falcon II only)
J Gun Air Regulator (Gray Knob)
M Wet Cup
N Pump Stand

COMPONENTS YOU MUST SUPPLY

A Electrically Conductive Air Supply Hose
B Bleed-Type Master Air Valve (for accessories)
C Air Line Filter
D Air Line Moisture Trap and Drain Valve
L 5 Gallon Pail



Model 232833 Shown

Fig. 1

9345B

Installation

Supplied Components

⚠ WARNING

A red-handled bleed-type master air valve (E) is supplied. This component helps 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 when adjusting or repairing the pump.

The bleed-type master air valve relieves air trapped between this valve and the pump after the valve is closed. Trapped air can cause the pump to cycle unexpectedly.

- **Fig. 1. The red-handled bleed-type master air valve (E)** is required in your system to relieve air trapped between it and the air motor and gun when the valve is closed (see the **WARNING** above). Do not block access to the valve.
- **The pump air regulator with red knob (G)** controls pump speed and outlet pressure by adjusting the air pressure to the pump.
- **The air relief valve (H)** (on Falcon II packages only) opens automatically to prevent overpressurization of the pump.
- **The gun air regulator with gray knob (J)** adjusts the air pressure to the air-assisted Alpha spray gun (28).
- **The suction hose (23)** allows the pump to draw fluid from a 5 gallon pail (L). Also supplied is a **filter (25)**.
- **The air-assisted Alpha spray gun (106)** dispenses the fluid. The gun houses the spray tip (33 not shown), which is available in a wide range of sizes for different spray patterns and rates of flow. The standard tip included with this package is AAM413 (Falcon) or AAM415 (Falcon II). The package also includes a tip of choice. Both tips are unassembled. Refer to gun manual 311001 for tip installation.

⚠ WARNING

Hoses must be connected correctly. An incorrectly installed hose may burst causing serious injury.

- The **red hose (34)** provides the gun air supply.
- The **blue hose (31)** provides the gun fluid supply.
- **The gun swivel (38)** allows for freer gun movement and comes attached to the blue hose.

Installation

Grounding

⚠ WARNING

FIRE AND EXPLOSION HAZARD
Before operating the pump, ground the system as explained below. Also read the section **FIRE AND EXPLOSION HAZARD** on page 5.

1. *Pump:* use the ground wire and clamp (supplied). See Fig. 2. Loosen the grounding lug locknut (W) and washer (X). Insert one end of the ground wire (22) into the slot in lug (Z) and tighten the locknut securely. Connect the other end of the wire to a true earth ground.

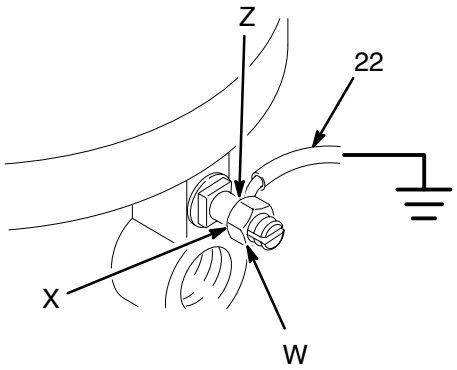


Fig. 2 0720

2. *Pump air supply and fluid hoses:* Use only electrically conductive hoses with a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity. Check the electrical resistance of your air and fluid hoses at least once a week. If the total resistance to ground exceeds 29 megohms, replace the hose immediately.

NOTE: Use a meter that is capable of measuring resistance at this level.

3. *Air compressor:* follow manufacturer's recommendations.
4. *Spray gun:* ground through connection to a properly grounded fluid hose and pump.
5. *Fluid supply container:* follow your local code.
6. *Object being sprayed:* follow your local code.
7. *Solvent pails used when flushing:* follow your local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.
8. *To maintain grounding continuity when flushing or relieving pressure*, hold a metal part of the spray gun firmly to the side of a grounded *metal* pail, then trigger the gun.

Setup

1. Fig.1. Attach end of blue fluid hose (31) without gun swivel (38) to pump outlet (F).
2. Attach one end of red air hose (34) to gun air regulator with gray knob (J).

⚠ WARNING

Hoses must be connected properly. An incorrectly installed hose may burst causing serious injury.

3. Attach remaining end of red air hose (34) to air inlet at base of gun (28).
4. Attach gun swivel to gun (28) fluid inlet.
5. Tape red air hose (34) and blue fluid hose (31) together as needed.
6. Apply lens cover (39) to both regulator gage lenses.

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 tip.

1. Fig. 6. Shut off power to the pump by closing the bleed-type master air valve (E, required in the system).

2. Fig. 3. Unlock the gun trigger safety.

3. Hold a metal part of the gun firmly to the side of a grounded metal waste container and trigger the gun to relieve the fluid pressure.

4. Lock the gun trigger safety.

5. If you suspect that the spray tip is completely clogged or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the air cap retaining ring to relieve pressure in the cavity between the ball/seat shutoff and the plugged tip. Clear the tip orifice.

6. If you suspect that the gun fluid filter or the fluid hose is completely clogged or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the hose end coupling at the gun and relieve pressure gradually. Then loosen completely to clear the obstruction.

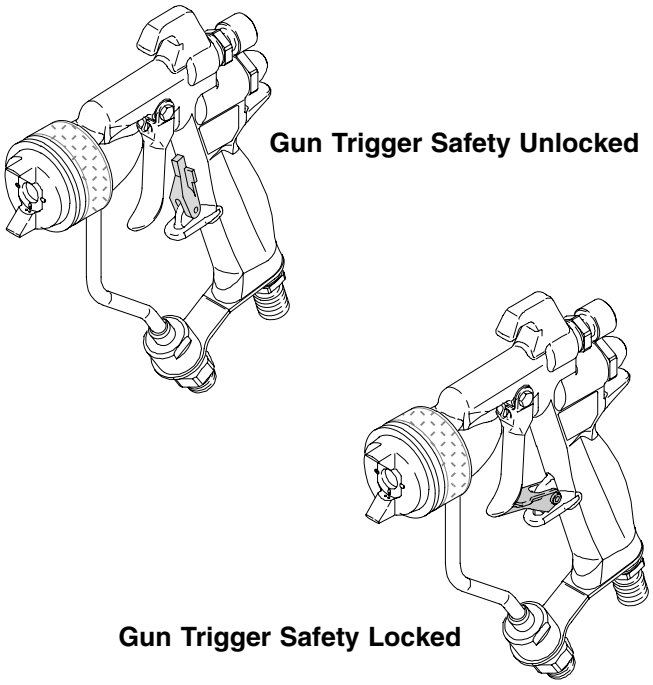


Fig. 3

⚠ WARNING

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 hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip or hose.

Wet Cup

Fig. 6. Before starting, fill wet cup (M) 1/3 full with Graco Throat Seal Liquid (TSL) or compatible solvent.

⚠ WARNING

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

Flush the Pump Before First Use

The pump is tested with lightweight oil, which is left in to protect the pump parts. If the fluid you are using may be contaminated by the oil, flush it out with a compatible solvent. See **Flushing** on page 14.

Operation

Prime Pump

1. Fig. 6. Remove tip guard and spray tip from gun (28). Refer to gun manual.
2. Close gun air regulator with gray knob (J) by turning knob counter clockwise reducing pressure to zero. Close pump air regulator with red knob (G) by turning knob counter clockwise reducing pressure to zero. Close bleed-type air valves (B, E).
3. Connect air line (A) to bleed type air valve (E).
4. Check that all fittings throughout system are tightened securely.
5. Position pail (L) under pump as shown in Fig. 6.
6. Hold metal part of gun (28) firmly to side of grounded metal pail and hold trigger open.
7. Open bleed-type air valves (B, E). Slowly turn clockwise pump air regulator with red knob (G) increasing pressure until pump starts.
8. Cycle pump slowly until all air is pushed out and pump and hoses are fully primed.
9. Release gun trigger and lock trigger safety. Pump should stall against pressure.

Install Spray Tip

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 10.

Relieve the pressure by shutting off air valve and then trigger the gun. Install the spray tip and tip guard as explained in your separate gun manual, supplied.

The fluid output and pattern width depend on the size of the spray tip, the fluid viscosity, and the fluid pressure. Use the **Spray Tip Selection Chart** in your gun instruction manual as a guide for selecting an appropriate spray tip for your application.

Adjust the Spray Pattern

⚠ WARNING

INJECTION HAZARD
To reduce the risk of component rupture and serious injury, including injection, do not exceed the gun's maximum fluid working pressure of 1500 psi (10 MPa, 105 bar) or the maximum working pressure of the lowest rated component in the system.

⚠ WARNING

COMPONENT RUPTURE HAZARD
Do not exceed the **maximum fluid and air pressure** of this gun. Higher pressures can cause parts to rupture and result in serious injury.

1. Do not turn on air supply. Set fluid pressure at low starting pressure. For low viscosity fluids (less than 25 sec, #2 Zahn cup) with lower percent solids (typically less than 40%), start at 300 psi (2.1 MPa, 21 bar) at pump outlet. For fluids with higher viscosity or higher solids content, start at 600 psi (4.2 MPa, 42 bar). Fluid pressure is controlled by air regulator supplying pump. See example following.

Example:

Pump Ratio	x	Pump Air Regulator Setting	=	Fluid Pressure
Falcon I (10:1 ratio)	x	30 psi (0.21 MPa, 2.1 bar)	=	300 psi (2.1 MPa, 21 bar)
Falcon II (20:1 ratio)	x	30 psi (0.21 MPa, 2.1 bar)	=	600 psi (4.2 MPa, 42 bar)

Operation

Adjust the Spray Pattern (Cont'd)

2. Trigger gun to check atomization; do not be concerned about pattern shape.

3. Increase fluid pressure in 100 psi (0.7 MPa, 7 bar) increments, just to point where further increase in fluid pressure does not significantly improve fluid atomization. See example following.

   Example:

Pump Ratio	x	Pump Air Regulator Setting (increments)	=	Fluid Pressure (increments)
Falcon I (10:1 ratio)	x	10 psi (0.07 MPa, 0.7 bar)	=	100 psi (0.7 MPa, 7 bar)
Falcon II (20:1 ratio)	x	5 psi (0.035 MPa, 0.35 bar)	=	100 psi (0.7 MPa, 7 bar)

4. Fig. 4. Close off pattern adjustment air by turning knob (S) clockwise (in) all the way. This sets gun for its widest pattern.

5. Fig. 5. Set atomizing air pressure at about 5 psi (0.35 bar, 35 kPa) when triggered. Check spray pattern, then slowly increase air pressure until tails are completely atomized and pulled into spray pattern. Do not exceed 100 psi (0.7 MPa, 7 bar) air pressure to gun.

   Fig. 4. *For narrower pattern,* turn pattern adjustment valve knob (S) counterclockwise (out). If pattern is still not narrow enough, increase air pressure to gun slightly or use different size tip.

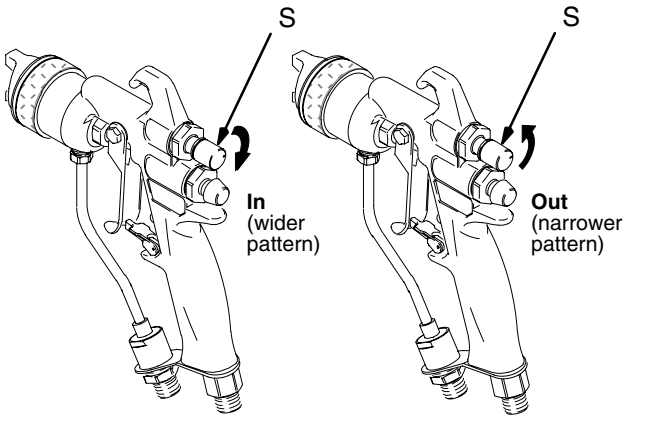


Fig. 4

Fig. 5

Shutdown and Care of the Pump

⚠ WARNING

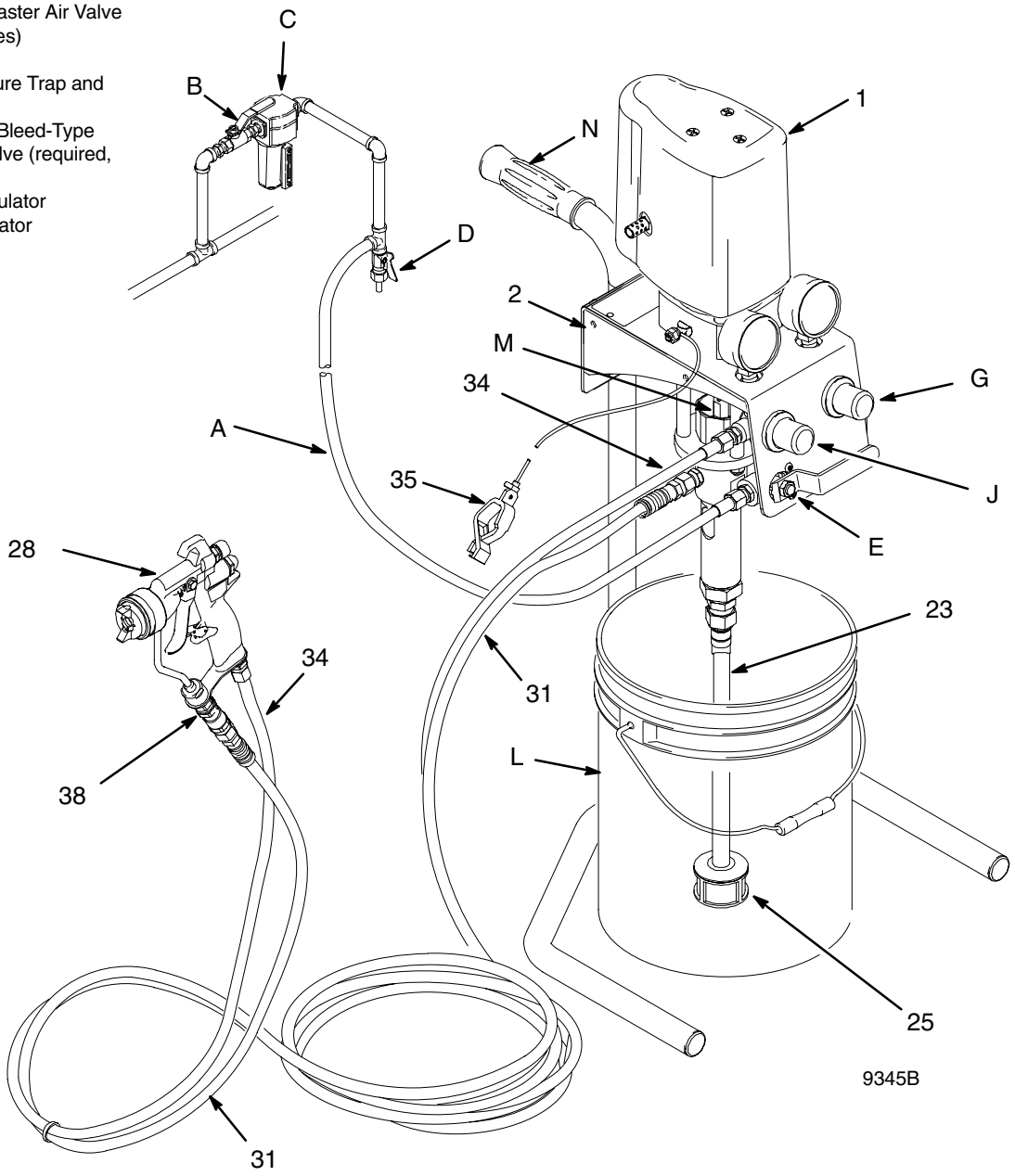
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 10.

Always flush the pump before the fluid dries on the displacement rod. See **Flushing** on page 14.

Operation

KEY

1 Pump
2 Wall Bracket
23 Suction Hose
25 Filter
28 Air-Assisted Spray Gun
31 Gun Fluid Supply Hose
34 Gun Air Supply Hose
35 Ground Wire
38 Gun Filter/Swivel
A Electrically Conductive Air Supply Hose
B Bleed-Type Master Air Valve (for accessories)
C Air Line Filter
D Air Line Moisture Trap and Drain Valve
E Red-Handled Bleed-Type Master Air Valve (required, for pump)
G Pump Air Regulator
J Gun Air Regulator
L 5 Gallon Pail
M Wet-Cup
N Pump Stand



Model 232833 Shown

Maintenance

Preventive Maintenance Schedule

The operating conditions of your particular system determine how often maintenance is required. Establish a preventive maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

Fig.1. Replace lens covers (39) on regulator gauge lenses when dirt makes gauges difficult to read.

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 10.

Flushing

⚠ WARNING

FIRE AND EXPLOSION HAZARD
Before flushing, read the section **FIRE AND EXPLOSION HAZARD** on page 5. Be sure the entire system and flushing pails are properly grounded. Refer to **Grounding** on page 9.

Flush the pump:

- Before first use
- When changing colors or fluids
- Before fluid drys or settles out in a dormant pump (check the pot life of catalyzed fluids)
- Before storing the pump.

Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency.

⚠ WARNING

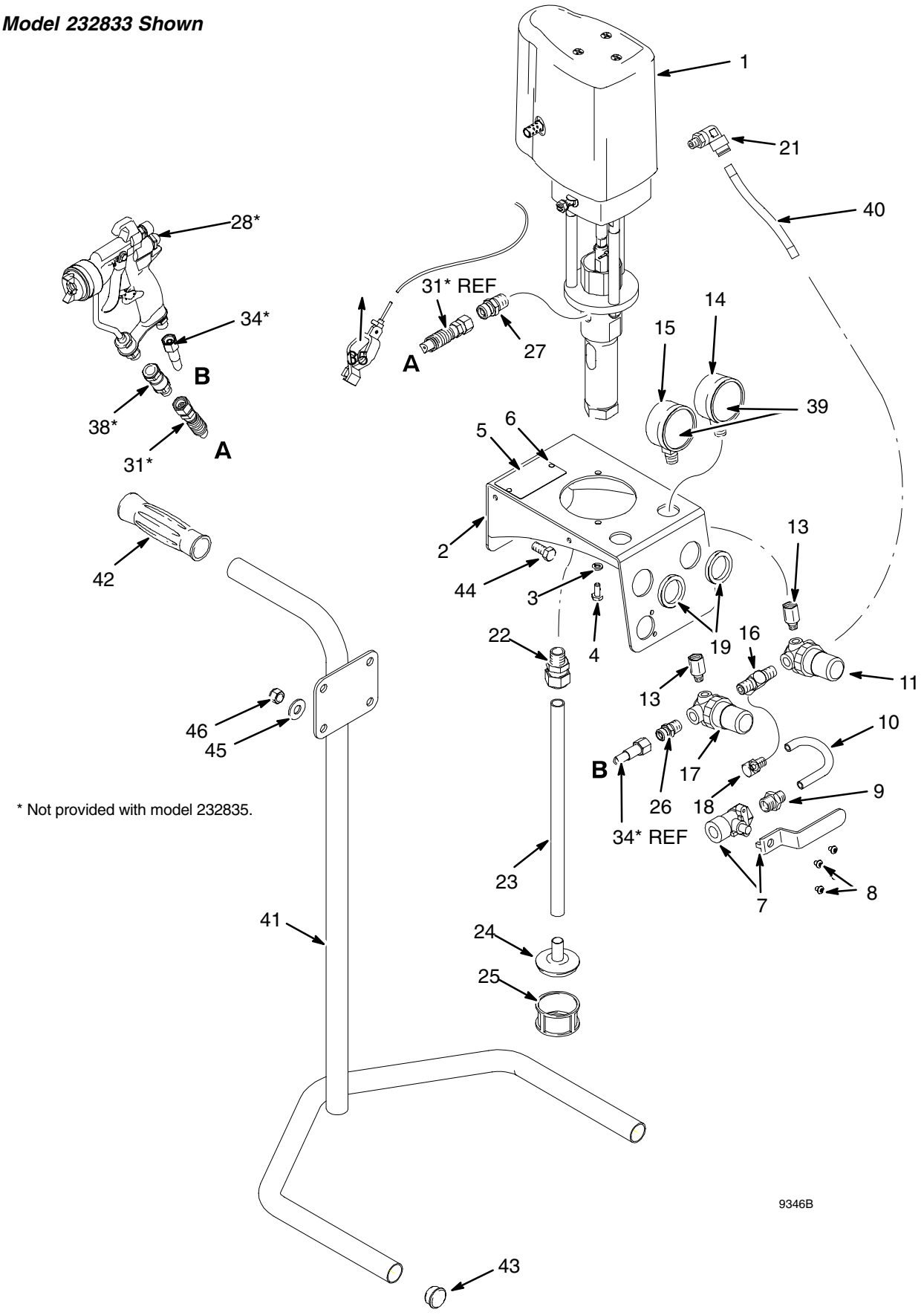
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 10.

1. Fig. 6. Relieve the pressure.
2. Remove tip guard and spray tip from gun. Refer to gun manual 308993.
3. Place suction hose (23) in container of solvent.
4. Hold metal part of gun firmly to side of grounded *metal* pail.
5. Start pump. Always use lowest possible fluid pressure when flushing.
6. Trigger gun. Flush system until clear solvent flows from gun.
7. Relieve pressure.
8. Clean tip guard, spray tip, and fluid filter element separately, then reinstall them.
9. Clean inside and outside of suction hose.

Notes

Falcon Parts Drawing

Model 232833 Shown



* Not provided with model 232835.

Falcon Parts List

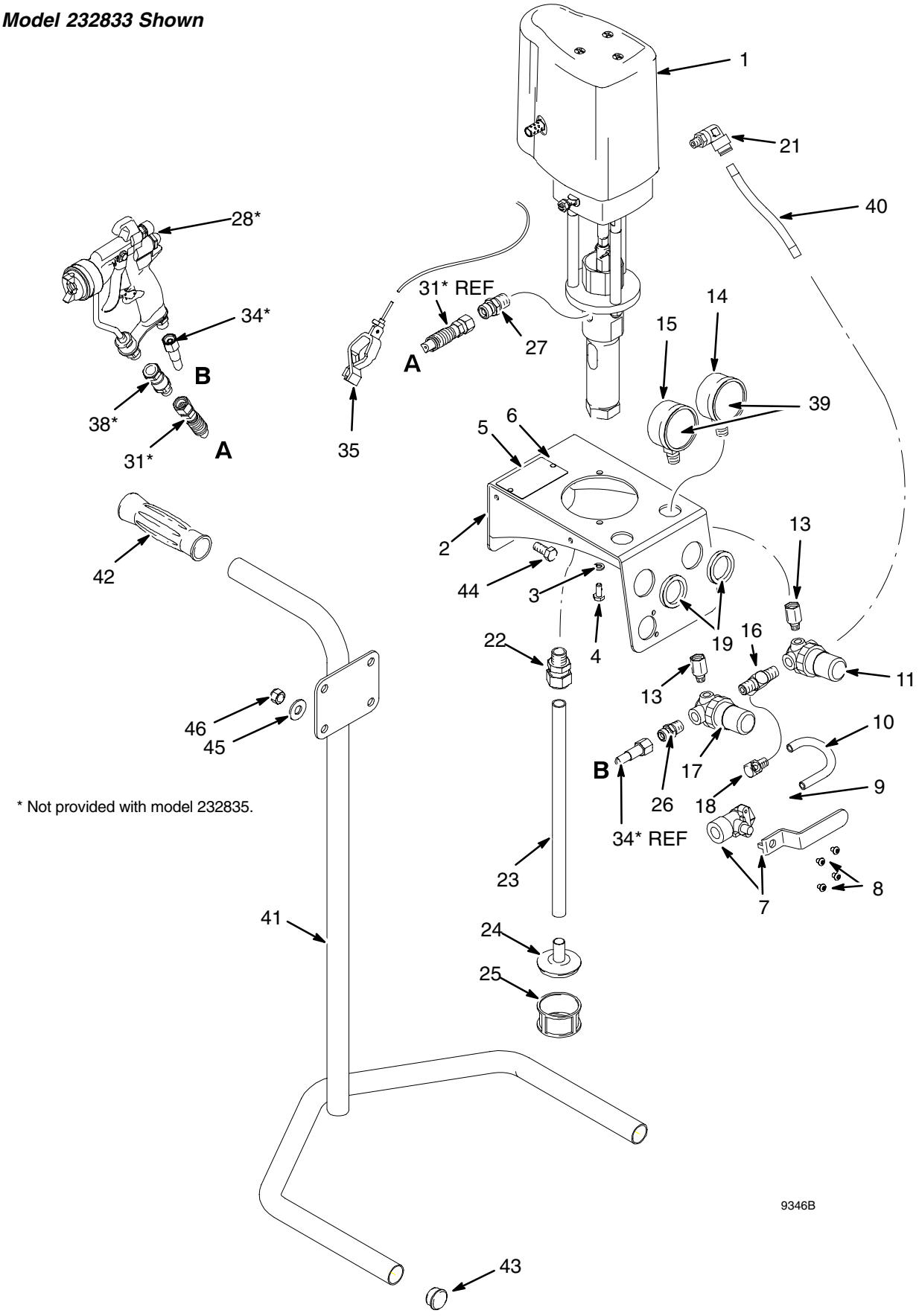
Falcon
Models: 232833 and 232835

Ref No.	Part No.	Description	Qty
1	241594	PUMP, Falcon, 10:1 (see manual 308996)	1
2	243594	BRACKET, pump	1
3	100016	WASHER, lock	2
4	100270	SCREW, cap, hex hd	2
5	15C287	PLATE, designation	1
6	104088	RIVET, blind	2
7	114362	VALVE, ball, valve	1
8	114381	SCREW, cap, button hd	2
9	157350	NIPPLE, pipe, hex	1
10	061374	TUBE, polyurethane, round, 7.25 in.	1
11	115242	REGULATOR, air, 1/4 npt	1
13	159840	ADAPTER	2
14	160430	GAUGE, pressure, air	1
15	115252	GAUGE, pressure, air	1
16	115219	FITTING, tee, 1/4 npt	1
17	115243	REGULATOR, air, 1/4 npt	1
18	100840	ELBOW	1
19	115244	NUT, regulator	2
21	115841	FITTING, elbow	1
22	115449	ADAPTER, male (used on models 232833 and 232834)	1
23	054715	HOSE, coupled, suction (used on models 232833 and 232834)	1
24	181163	HOUSING, filter (used on models 232833 and 232834)	1
25	181164	FILTER (used on models 232833 and 232834)	1
26	162453	NIPPLE	1
27	166846	FITTING, adapter	1
28*	249233	GUN ASSY, carbide (see manual 311001) (used on model 232833)	1
31*	241812	HOSE, fluid, coupled, 25 ft (used on models 23283 and 232834)	1
32*	AAMXXX	TIP, optional (user selected – not shown)	1
33*	AAM413	TIP, spray (not shown)	1
34*	241811	HOSE, air, coupled, 25 ft (used on models 232833 and 232834)	1
35	238909	WIRE, grounding assy	1
38*	195289	SWIVEL (used on models 232833 and 232834)	1
39	193199	LENS COVER SHEET	1
40	061374	TUBE, polyurethane, round, 6.67 in.	1
	241915	STAND ASSEMBLY	1
41	241914	. STAND, falcon	1
42	108063	. GRIP, handle	1
43	105521	. PLUG, tubing	2
44	100680	SCREW, cap, hex hd, 3/8–16 unc–2a	4
45	100132	WASHER	4
46	101566	NUT, hex, locking, 3/8–16 unc–2b	4

* Not provided with model 232835.

Falcon II Parts Drawing

Model 232833 Shown



* Not provided with model 232835.

Falcon II Parts List

Falcon II
Models: 232836 and 232838

Ref No.	Part No.	Description	Qty
1	241595	PUMP, Falcon, 20:1 (see manual 308996)	1
2	243594	BRACKET, pump	1
3	100016	WASHER, lock	2
4	100270	SCREW, cap, hex hd	2
5	15C287	PLATE, designation	1
6	104088	RIVET, blind	2
7	114362	VALVE, ball, valve	1
8	114381	SCREW, cap, button hd	2
9	157350	NIPPLE, pipe, hex	1
10	061374	TUBE, polyurethane, round, 7.25 in.	1
11	115242	REGULATOR, air, 1/4 npt	1
13	159840	ADAPTER	2
14	160430	GAUGE, pressure, air	1
15	115252	GAUGE, pressure, air	1
16	115219	FITTING, tee, 1/4 npt	1
17	115243	REGULATOR, air, 1/4 npt	1
18	100840	ELBOW	1
19	115244	NUT, regulator	2
21	115841	FITTING, elbow	1
22	115449	ADAPTER, male (used on models 232836 and 232837)	1
23	054715	HOSE, coupled, suction (used on models 232836 and 232837)	1
24	181163	HOUSING, filter (used on models 232836 and 232837)	1
25	181164	FILTER (used on models 232836 and 232837)	1
26	162453	NIPPLE	1
27	166846	FITTING, adapter	1
28*	249233	GUN ASSY, carbide (see manual 311001) (used on model 232836)	1
31*	241812	HOSE, fluid, coupled, 25 ft (used on models 232836 and 232837)	1
32*	AAMXXX	TIP, optional (user selected – not shown)	1
33*	AAM415	TIP, spray (not shown)	1
34*	241811	HOSE, air, coupled, 25 ft (used on models 232836 and 232837)	1
35	238909	WIRE, grounding assy	1
38*	195289	SWIVEL (used on models 232836 and 232837)	1
39	193199	LENS COVER SHEET	1
40	061374	TUBE, polyurethane, round, 6.67 in.	1
	241915	STAND ASSEMBLY	1
41	241914	. STAND, falcon	1
42	108063	. GRIP, handle	1
43	105521	. PLUG, tubing	2
44	100680	SCREW, cap, hex hd, 3/8–16 unc–2a	4
45	100132	WASHER	4
46	101566	NUT, hex, locking, 3/8–16 unc–2b	4

* Not provided with model 232838.

Technical Data

Category	Data
Maximum fluid working pressure	*Part Nos: 232833, 232835;* 1000 psi (7 MPa, 70 bar) *232836, 232838;* 1500 psi (10 MPa, 100 bar)
Maximum air input pressure	*Part Nos: 232833, 232835;* 100 psi (0.7 MPa, 7 bar) *232836, 232838;* 68 psi (0.5 MPa, 4.7 bar)
Maximum gun air input pressure	50 psi (0.35 MPa, 3.5 bar)
Ratio	*Part Nos. 232833, 232835:* 10:1 *Part Nos. 232836,232838:* 20:1
Maximum operating temperature	120°F (66°C)
Weight	*Part Nos. 232833, 232835, 232836, 232838; 30* lb (13.6 Kg)
Wetted parts	*Pump:* See pump manual *311001* *Spray Gun:* See gun manual 308993 *Motor:* See motor manual 308995

Sound Pressure Levels dB(A)

(measured at 1 meter from unit)

	Input Air Pressures at 20 cycles per minute		30 cycles per minute
Air Motor	**40 psi (0.28 MPa, 2.8 bar)**	**70 psi (0.48 MPa, 4.8 bar)**	**100 psi (0.7 MPa, 7 bar)**
Falcon	66.47 dB(A)	67.53 dB(A)	70.81 dB(A)
Falcon II	68.40 dB(A)	70.34 dB(A)	74.56 dB(A)

Sound Power Levels dB(A)

(tested in accordance with ISO 9614–2)

	Input Air Pressures at 20 cycles per minute		30 cycles per minute
Air Motor	**40 psi (0.28 MPa, 2.8 bar)**	**70 psi (0.48 MPa, 4.8 bar)**	**100 psi (0.7 MPa, 7 bar)**
Falcon	70.06 dB(A)	71.31 dB(A)	74.78 dB(A)
Falcon II	71.47 dB(A)	70.72 dB(A)	77.38 dB(A)

Technical Data

Performance Charts

To find Fluid Outlet Pressure (psi/MPa/bar) at a specific fluid flow (lpm/gpm) and operating air pressure (psi/MPa/bar):

1. Locate fluid flow rate along bottom of chart.
2. Follow vertical line up to intersection with selected fluid outlet pressure curve.
3. Follow left to scale to read fluid outlet pressure.

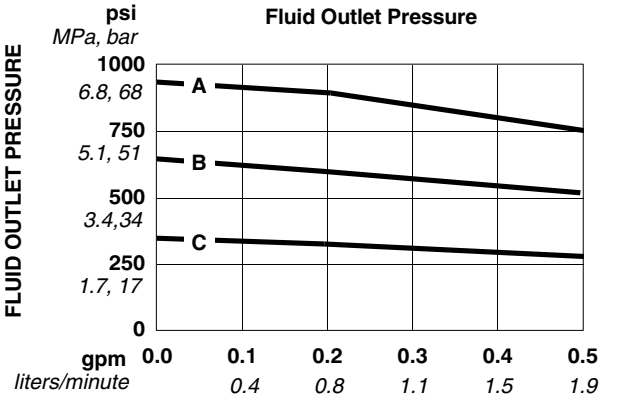
A 100 psi (0.7 MPa, 7 bar) air pressure
B 70 psi (0.49 MPa, 4.9 bar) air pressure
C 40 psi (0.28 MPa, 2.8 bar) air pressure

To find Pump Air Consumption (m^3/min or scfm) at a specific fluid flow (lpm/gpm) and air pressure (psi/MPa/bar):

1. Locate fluid flow rate along bottom of chart.
2. Read vertical line up to intersection with selected air consumption curve.
3. Follow left to scale to read air consumption.

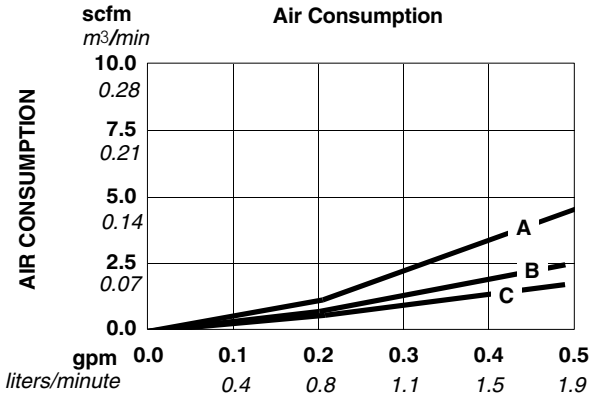
A 100 psi (0.7 MPa, 7 bar) air pressure
B 70 psi (0.49 MPa, 4.9 bar) air pressure
C 40 psi (0.28 MPa, 2.8 bar) air pressure

FALCON 10:1
Fluid Outlet Pressure



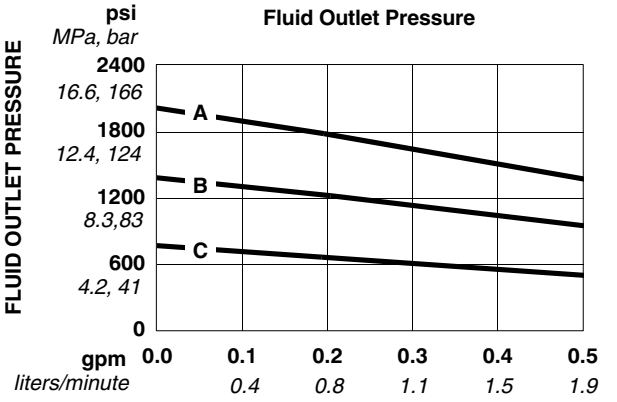
FLUID FLOW (TEST FLUID: NO. 10 WEIGHT OIL)

FALCON 10:1
Air Consumption



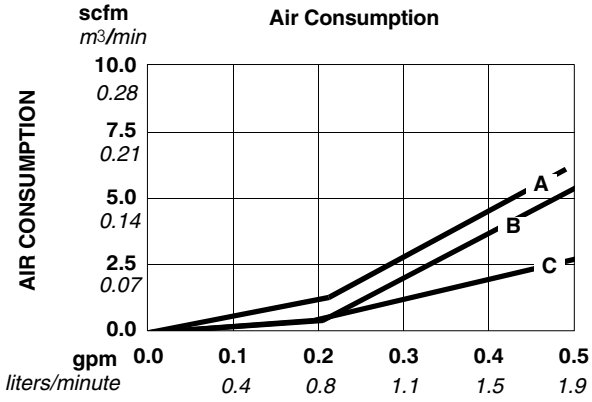
FLUID FLOW (TEST FLUID: NO. 10 WEIGHT OIL)

FALCON II 20:1
Fluid Outlet Pressure



FLUID FLOW (TEST FLUID: NO. 10 WEIGHT OIL)

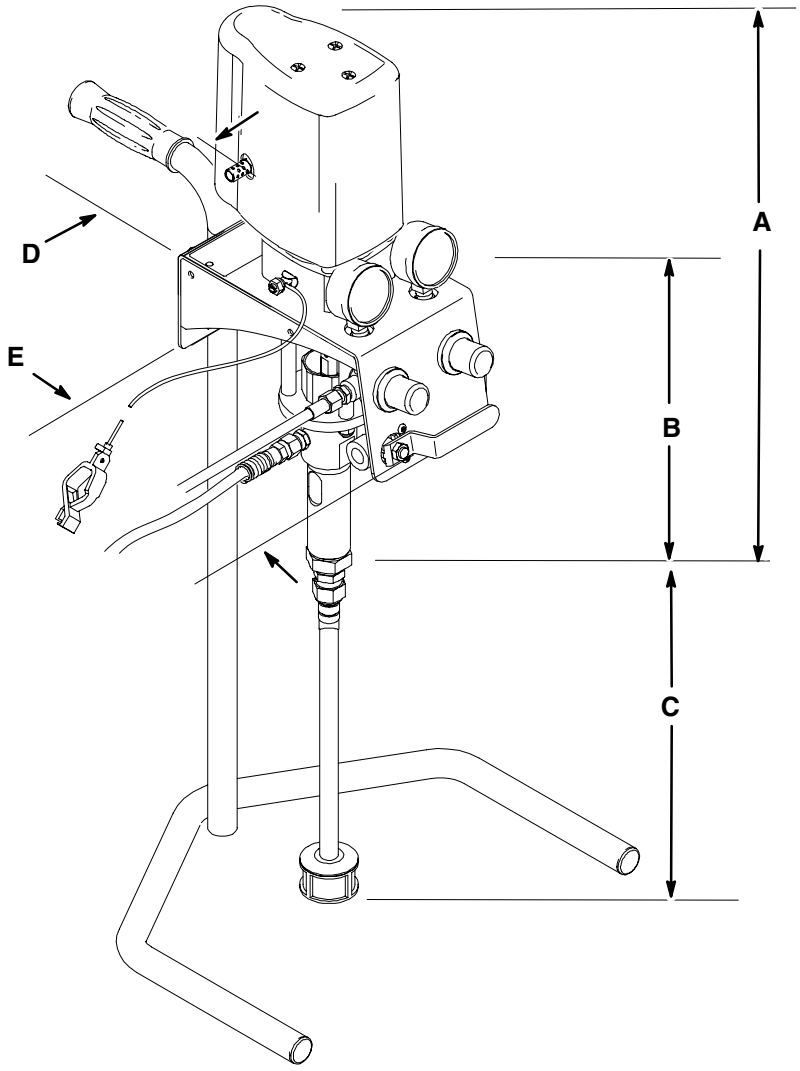
FALCON II 20:1
Air Consumption



FLUID FLOW (TEST FLUID: NO. 10 WEIGHT OIL)

Dimensions

Model 232833 Shown



9344B

Pump Model	A	B	C	D	E
232833 to 232835 Falcon 10:1	21.2 in. (538 mm)	13 in. (330 mm)	13.7 in. (348 mm)	5.5 in. (139 mm)	10.6 in. (269 mm)
232836 to 232838 Falcon II 20:1	21.2 in. (538 mm)	13 in. (330 mm)	13.7 in. (348 mm)	5.5 in. (139 mm)	10.6 in. (269 mm)

Notes

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 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.

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