INSTRUCTIONS-PARTS LIST 6000134

Rev. H

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

INSTRUCTIONS

GRACO

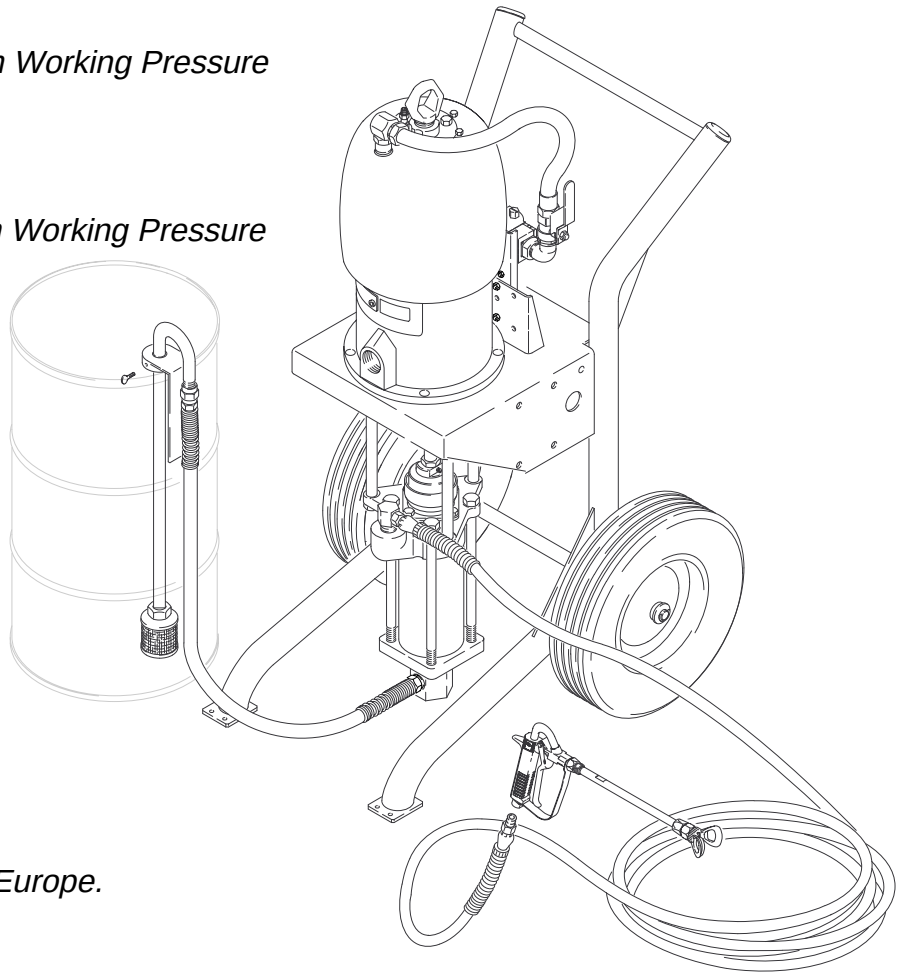
First choice when quality counts.™

PORTABLE, STAINLESS STEEL

Hydra-Clean® Pressure Washers

Model 6880242* , Series D (shown)
28:1 Ratio King
193 bar (2800 psi) Maximum Working Pressure

Model 965389, Series A
34:1 Ratio Premier
238 bar (3400 psi) Maximum Working Pressure



06648A

** Package only available in Europe.*

The Graco warranty will not apply if cleaning solutions other than those recommended by Graco are used in these units. Only use solutions that are not harmful to the wetted parts. See the Technical Data on page 9.

CE Ex II 2 G

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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

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 unsure about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only Graco parts and accessories.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure stated for your equipment. Do not exceed the maximum working pressure of the lowest rated component in your system.
- Do not lift pressurized equipment.
- Handle hoses carefully. Do not pull on hoses to move equipment.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 82°C (180°F) or below –40°C (–40°F).
- Wear hearing protection when operating this equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

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.

⚠ WARNING

INJECTION HAZARD

Spray from the gun, 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 is a serious injury. The injury may look like just a cut, but it is a serious injury. Get immediate medical attention.
- 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.
- Always have the tip guard and the trigger guard on the gun when spraying.
- 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 6 if the spray tip clogs and before cleaning, checking or servicing the equipment.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately.

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 4.
- 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.
- Before operating this equipment, electrically disconnect all equipment in the spray area.
- Before operating this equipment, 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 spraying or while operating if fumes are present.
- Do not operate a gasoline engine in the spray area.

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 3.

Grounding is essential to maintain a safe operating system.

To reduce risk of static sparking, ground pump. Check local electrical code for detailed grounding instructions for area and type of equipment. Be sure to ground all equipment.

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

2. *Air and fluid hoses:* use only electrically conductive hoses. Use a maximum of 500 feet (150 m) combined hose length to ensure grounding continuity.

3. *Spray gun:* ground through connection to a properly grounded fluid hose and pump.

4. *Fluid supply container:* follow your local code.

5. *Object being sprayed:* follow your local code.

6. *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.

7. *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.

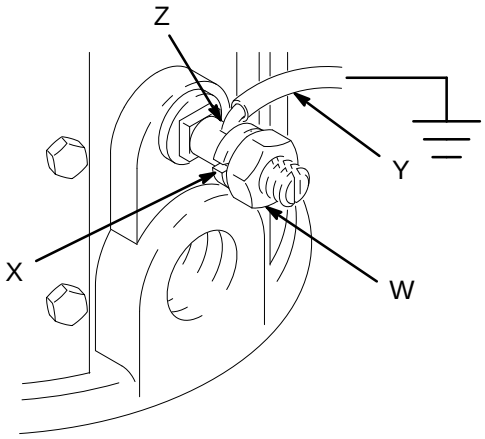


Fig. 1

Installation

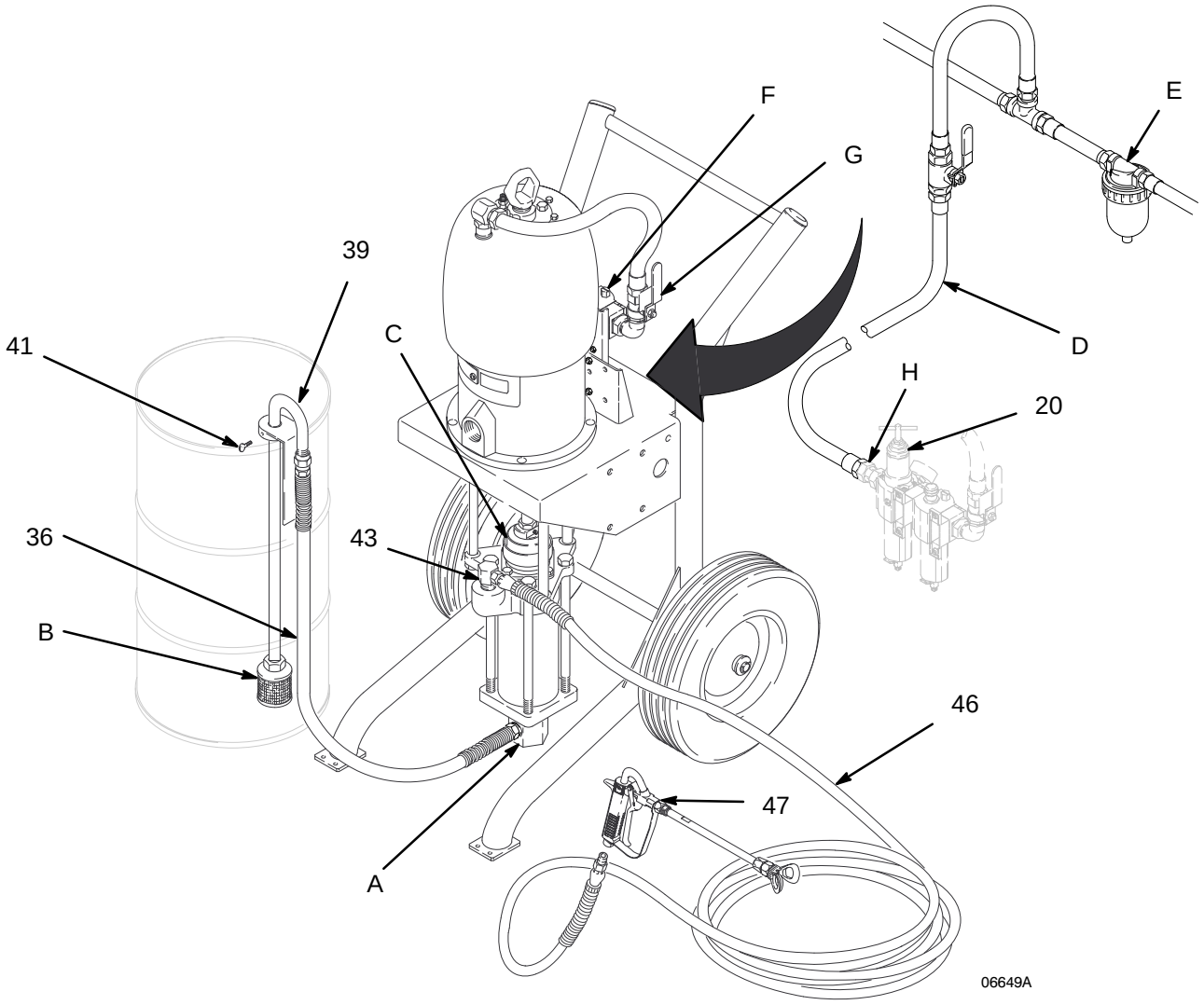


Fig. 2

Pump Setup

See Fig. 2. Connect the suction hose (36) between the pump inlet (A) and the suction tube (39), using thread sealant on the male threads. Screw on the suction tube filter (B). Place the suction tube in the supply drum, and adjust it so it is 1 in. (25 mm) off the bottom of the drum. Tighten the thumbscrew (41) of the pipe hanger onto the drum.

NOTE: The previous paragraph applies to Model 6880242 only. Model 965389 comes without suction hose and tube, to allow different feed options.

Connect the spray hose (46) to the pump outlet manifold (43). Connect the spray gun (47) to the hose (46). Use thread sealant on the male threads.

Fill the displacement pump wet-cup (C) 1/2 full with Throat Seal Liquid, or a compatible solvent.

Refer to the separate instructions, supplied, for instructions on filling and adjusting the air line oiler (F), for Model 6880242 only.

Close the air shutoff valve (G). Then, connect a 3/4” ID (minimum) air supply hose (D) to the 3/4 npt (m) air manifold (H) swivel.

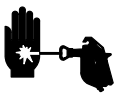
Ground the system as described on page 4.

An important step in installing this sprayer is to read and understand each of the instruction manuals supplied with sprayer. These manuals contain additional warnings, cautions, and detailed instructions about installing, operating, and servicing the various system components.

Operation

Pressure Relief Procedure

⚠ WARNING



INJECTION HAZARD
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/dispensing,
- check or service any of the system equipment,
- or install or clean the spray tips.

1. Engage the gun safety latch.
2. Close the air regulator.
3. Open the bleed-type air shutoff valve.
4. Disengage the gun safety latch.
5. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger then gun to relieve pressure.
6. Engage the gun safety latch.

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

Pump Operation

Prepare the cleaning solution according to the manufacturer's instructions. For your own safety, be sure to observe all warnings. If you are using powdered cleaners, mix them thoroughly in a separate pail before adding them to a supply drum. Undissolved powders are extremely abrasive and may damage pump parts.

⚠ WARNING

Wear appropriate protective clothing, such as waterproof outerwear and eye goggles, according to the cleaner manufacturer's recommendations. Cleaning chemicals may be toxic, and cause serious irritation to your eyes or skin.

See Fig. 2. To start the pump, close the air shutoff valve (G), close the air regulator (20) by turning the t-handle all the counterclockwise until the spring tension is relieved. Open the shutoff valve, hold a metal part of the gun firmly to the side of a grounded metal pail, trigger the gun, and slowly open the regulator until fluid comes from the gun. Release the trigger; the pump will stall against pressure.

When supplied with an adequate air pressure and volume, the pump will start and stop as the spray valve is opened and closed.

Use the air regulator (20) to control pump speed and fluid pressure. Always use the lowest pressure necessary to get the desired result. Higher pressures will waste the material and cause early spray tip and pump wear.

Operation

⚠ WARNING

To reduce the risk of overpressurizing the sprayer, NEVER exceed the Maximum Working Pressure (see the Technical Data). Be sure all accessories are rated to withstand the Maximum Working Pressure of the sprayer.

Model 6880242 only:
Adjust the air line oiler to about 2 drops per minute through the sight glass when the pump is running. Refer to the separate instruction manual, supplied, for adjustment instructions.

Useful Hints

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

Protect surfaces that may be damaged by the cleaning solution. Rinse the solution off before it dries.

Hold the spray nozzle about 2 feet (2/3 meter) from the surface and completely mist-wet the object you are cleaning. Let the object soak briefly, then use the spray to “chisel” the dirt off. Keep the nozzle about 6 in. (153 mm) from and at an angle to the surface. If some dirt remains, wet the surface again, let it soak a little longer, then hold the nozzle close to the surface to blast the dirt off. A heated cleaning solution may work better; check with your cleaner manufacturer.

After all dirt is cleaned off, rinse all the solution off with clean, cold water. Relieve the Pressure whenever you stop spraying.

Always stop the pump at the bottom of its stroke to prevent material from drying on the rod and damaging the packings.

⚠ CAUTION

Never let the pump run dry. A pump that is running too fast can damage itself. Shut the pump off immediately, then check and refill the supply container to prevent air from being sucked into the system, keep liquid in the supply container at all times.

⚠ WARNING

Check the air shutoff valve (24) weekly to be sure it relieves all air in the motor when in the closed position. If it is not completely relieved, the pump could cycle unexpectedly and cause serious bodily injury. Replace the valve immediately it it is, or appears to be faulty.

Shutdown and Care of the Sprayer

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

Check the air line lubricator to ensure that it contains enough oil.

Relieve the pressure, and check the displacement pump packing nut adjustment often. The packing nut should be tight enough to stop leakage, but no tighter.

Keep the displacement pump wet-cup (C) 1/2 full at all times. The TSL helps protect the pump packings. See Fig. 2.

Troubleshooting

NOTE: Refer to the separate instruction manuals which were supplied with this sprayer, and the manuals which were supplied with any accessories you added, for complete operation, troubleshooting and repair instructions.

NOTE: Check all possible problems and solutions before disassembling the unit.

⚠ WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 6.

NOTE: Relieve the pressure before checking or servicing the equipment.

Problem	Cause	Solution
Will not spray	Insufficient air supply	See performance chart on page 9.
	Closed or clogged air regulator, valve, supply line, etc.	Open, clear.
	Obstructed spray tip, valve, or hose	Clear, use larger tip.
	Worn or damaged pump parts	See manual 308–148.
Valve will not stop pump operation	Clogged fluid intake filter	Clean.
	Exhausted cleaning solution supply	Refill.
	Worn or damaged pump parts	See manual 308–148
Valve will not stop fluid spray	Incorrect valve adjustment	Adjust
	Obstructed or worn valve stem or seat	Clear, replace
Fluid leaking from valve at needle	Closed or clogged air regulator, valve, supply line, etc.	Open, clear.
	Worn needle packings or loose packing nut	Tighten
Fluid will not come from pump (hose removed)	Insufficient air supply	See performance chart on page 9.
	Closed or clogged air regulator, valve, supply line, etc.	Open, clear.
	Obstructed spray tip, valve, or hose	Clear, use larger tip.
	Clogged fluid intake filter	Clean.
	Exhausted cleaning solution supply	Refill.
	Worn or damaged pump parts	See manual 308–148
Pump operating, but output low	Obstructed spray tip, valve, or hose	Clear, use larger tip.
	Exhausted cleaning solution supply	Refill.
	Worn or damaged pump parts	See manual 308–148
Fluid leaking from valve handle	Spray valve swivel packings worn	Replace

Technical Data

Model 6880242

Ratio	28:1
Maximum fluid working pressure	193 bar (19,3 MPa, 2800 psi)
Maximum air input pressure	7 bar (0,7 MPa, 100 psi)
Pump cycles per 3.8 liters (1 gallon)	9
Recommended pump speed for continuous operation	50 cycles/min
Maximum flow	21,8 liters/min at 50 cycles/min
Air motor piston effective area	506 cm^2 (78,5 $in.^2$)
Stroke length	120 mm (4,75 in.)
Displacement pump effective area	18 cm^2 (2,79 $in.^2$)
Maximum pump operating temperature	65°C (150°F)
Air inlet size	3/4 npsm(f)
Fluid inlet size	2 in. npt(f)
Fluid outlet size	1-1/2 in. npt(m)
Weight	approx. 138 kg
Wetted parts	304 and 329 grades of stainless steel, tungsten carbide, Delrin, PTFE, ultra-high molecular weight polyethylene
Sound pressure level (dBa) measured at 1 meter from unit, at 15 cycles/min	at air pressure 2,8 bar (0,28 MPa, 40 psi): 78,8 at air pressure 4,8 bar (0,48 MPa, 70 psi): 82,7 at air pressure 6,3 bar (0,63 MPa, 90 psi): 90,5
Sound power level (dBa) tested in accordance with ISO 9614-2, at 15 cycles/min	at air pressure 2,8 bar (0,28 MPa, 40 psi): 86,5 at air pressure 4,8 bar (0,48 MPa, 70 psi): 88,7 at air pressure 6,3 bar (0,63 MPa, 90 psi): 97,7

Model 965389

Ratio	34:1
Maximum fluid working pressure	238 bar (23,8 MPa, 3400 psi)
Maximum air input pressure	7 bar (0,7 MPa, 100 psi)
Pump cycles per 3.8 liters (1 gallon)	6,5
Recommended pump speed for continuous operation	60 cycles/min
Maximum flow	34,6 liters/min (9,2 gpm)
Air motor piston effective area	800 cm^2 (124 $in.^2$)
Stroke length	120 mm (4,75 in.)
Displacement pump effective area	24 cm^2 (3,72 $in.^2$)
Maximum pump operating temperature	82°C (180°F)
Air inlet size	3/4 npsm(f)
Fluid inlet size	1 in. npt(f)
Fluid outlet size	1-1/2 in. npt(m) or M42 x 2.0
Weight	182 kg
Wetted parts	304, 329, and 17-4 PH grades of stainless steel, tungsten carbide, Delrin, PTFE, ultra-high molecular weight polyethylene
Sound pressure level (dBa) measured at 1 meter from unit, at 15 cycles/min	at air pressure 2,8 bar (0,28 MPa, 40 psi): 82,5 at air pressure 4,8 bar (0,48 MPa, 70 psi): 82,4 at air pressure 7,0 bar (0,70 MPa, 100 psi): 83,0
Sound power level (dBa) tested in accordance with ISO 9614-2, at 15 cycles/min	at air pressure 2,8 bar (0,28 MPa, 40 psi): 90,6 at air pressure 4,8 bar (0,48 MPa, 70 psi): 90,6 at air pressure 7,0 bar (0,70 MPa, 100 psi): 95,9

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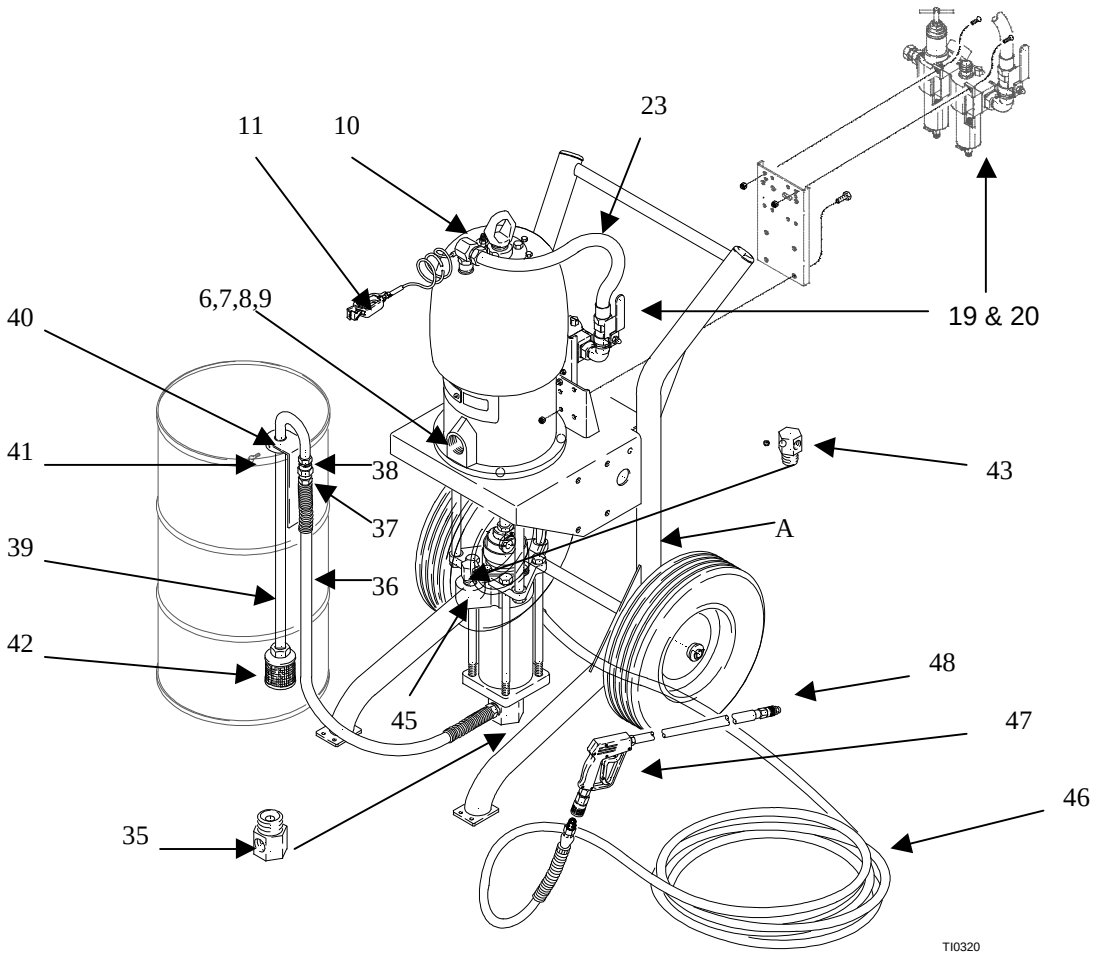
Parts

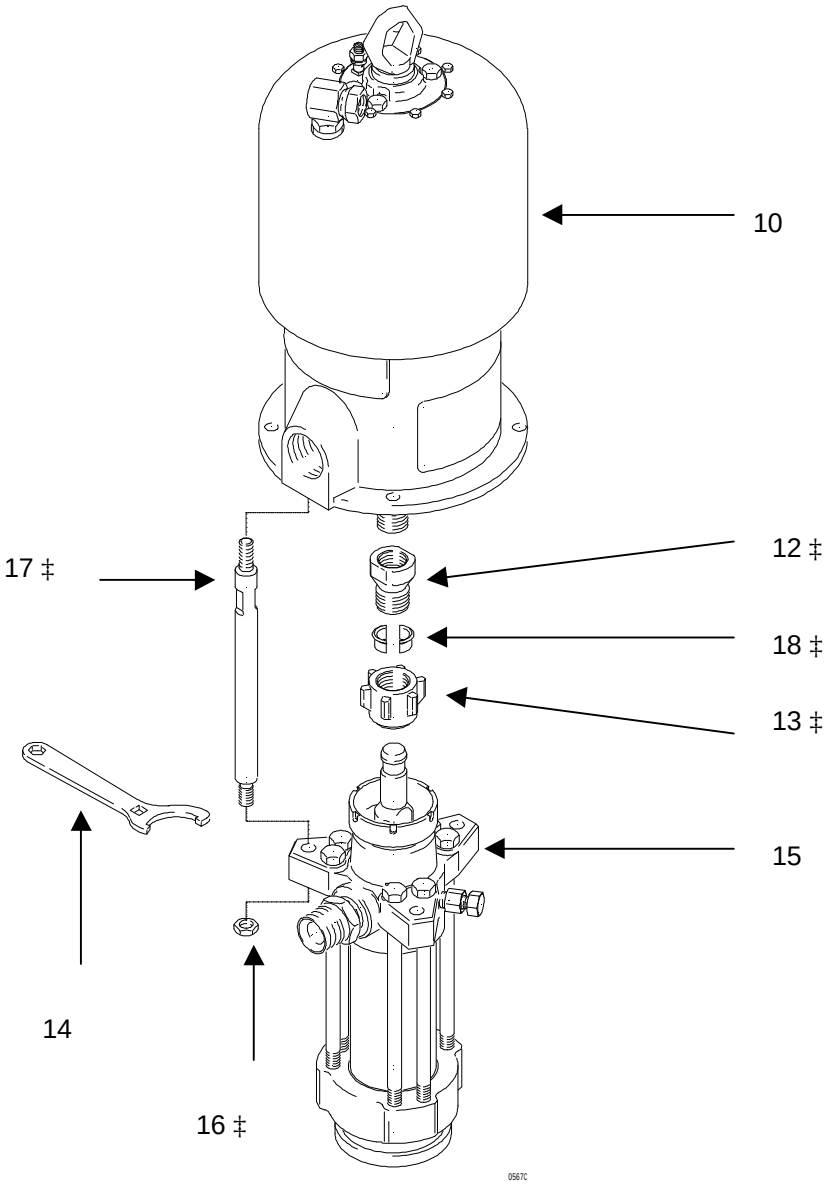
Model 6880242



Parts

Detail Dura – Flo 1800 Stainless Steel pump

Model 6880242



Parts
Model 6880242

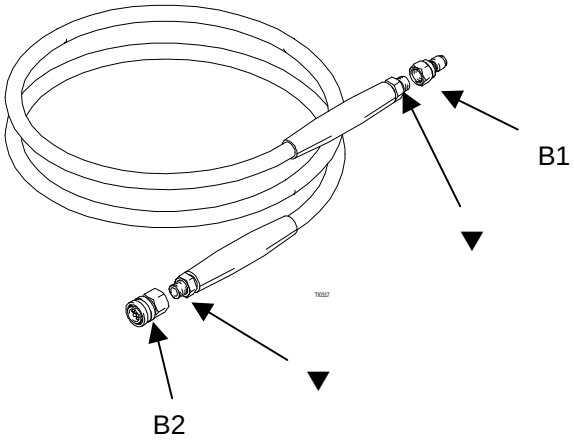
Ref.no.	Part No.		Qty.	Description
A	244530			Cart assembly *(includes parts 1 to 8)*
1	113361		2	Cart tube cap
2	113362		2	Cart wheel
3	154628		2	Washer 3/4"
4	113436		2	Retaining ring
5	191605		1	Bracket , stiffener
6	100131		4	Nut , hex 0.38-16
7	100133		4	Lockwasher , spring 0.38''
8	113743		4	CAPSCREW, hex hd; 3/8–16 unc–2a ; 4 in. (102 mm) long
9	238767		1	Spacer , big ring welded
10	245111		1	King air motor *, see manual 309347 for parts*
11	244524		1	Ground wire
12	184451	‡	1	Adapter , connecting rod
13	184096	‡	1	Nut , coupling
14	184278	‡	1	Wrench , packing nut
15	687055		1	Dura-Flo 1800 displacement pump , *see manual 308148 for parts*
16	106166	‡	3	Nut , hex M16x2.0
17	184452	‡	3	Rod , tie 265 mm shoulder to shoulder
18	184130	‡	2	Collar , coupling
19	103347		1	Valve , safety relief
20	244720		1	Air control kit , *see manual 309341 for repair and maintenance*
23	238374		1	Hose , air 19 mm (3/4 in) internal diameter
35	6878110		1	Elbow , reducing
36	214959		1	Hose coupled
37	103977		1	Swivel
38	166629		1	Coupling , hex pipe 1'' npt
39	166630		1	Suction tube 1'' npt
40	205770		1	Pipe hanger
41	100085		1	Screw , thumb 0.25 – 20 x0.5''
42	165447	#	1	Filter , fluid intake 1'' npt (f)
43	6878109		1	Manifold , outlet
45	235208		1	Union , swivel
46	244783	#	1	Hose , pressure; see page 13 for parts and specifications
47	244784		1	Gun and wand assembly
48	805546	#	1	Spray tip , Q-type

Recommended spare parts. Keep these parts on hand to reduce down time.

‡ These parts are included in connection kit no. 235414.
For applications requiring stainless steel tie rods , order kit no.222-913.

Parts

High pressure hose part 244783



Item	Part nbr.	
B1	197428	male quick release coupling
B2	801569	quick release coupling

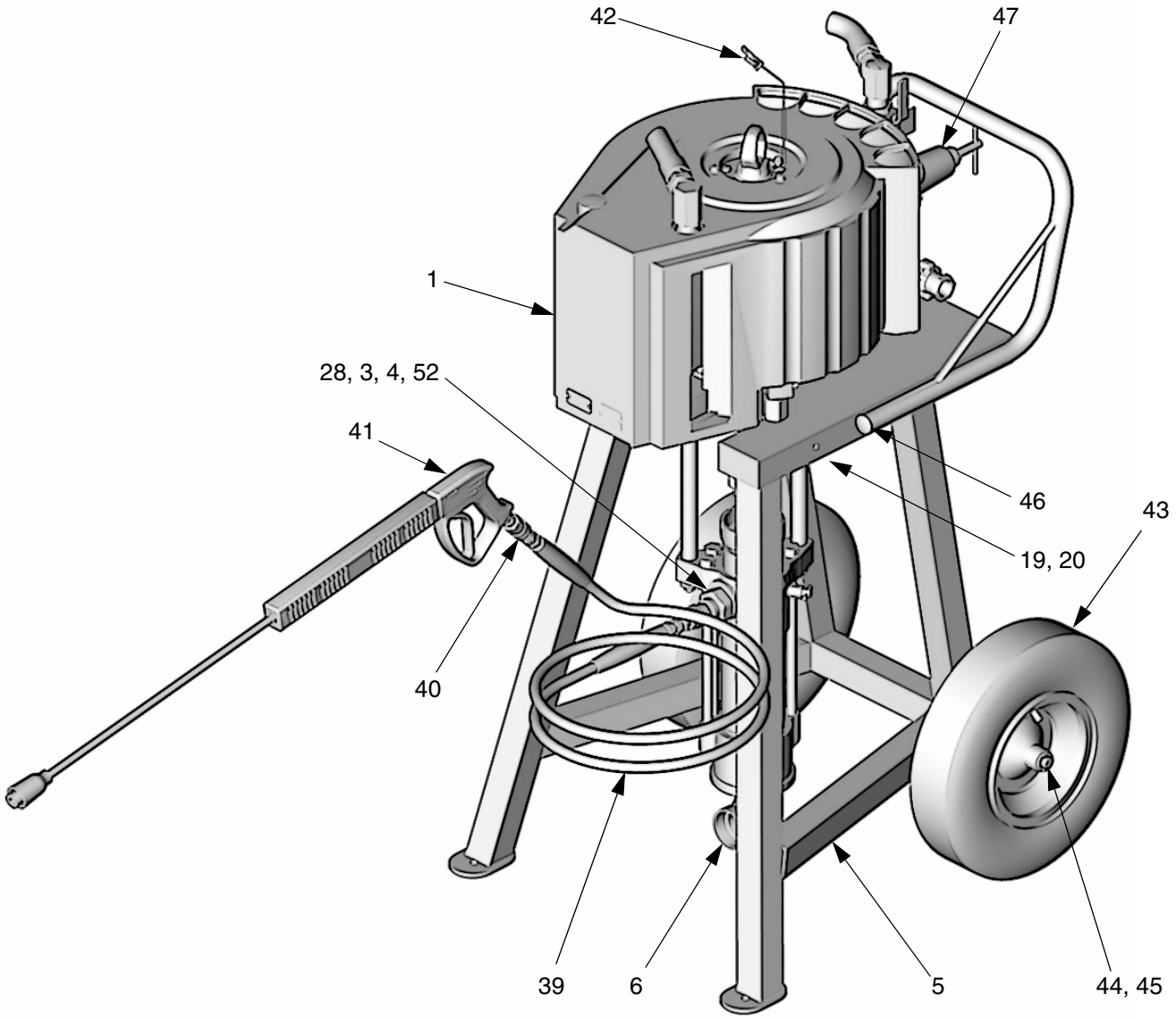
Note ▼ : Apply sealant p/n 070408 to threads on hose before assembly

Specifications :

Type :	high pressure fluid hose for pressure washer
Rating :	280 bar / 28 MPa / 4000 psi maximum working pressure
Dimensions :	internal diameter 3/8 ‘’
Couplings :	carbon steel , zinc plated and black PVC hose bend restrictors

Parts

Model 965389



Parts

Model 965389

Ref. No.	Part No.	Description	Qty.
1	241649	PUMP, Premier 800, 34:1; see 308152	1
3	184470	FITTING, outlet; 3/4 npt(m)	1
4	161490	COUPLING, reducing; 3/4 npt(f) x 3/8 npt(f)	1
5	189956	FRAME, cart	1
6	100088	ELBOW, street; 2 in. npt (m x f)	1
19	101566	NUT, lock; 3/8-16	3
20	100023	WASHER, flat; 3/8	3
24	805546	TIP, spray	1
28	155665	UNION, adapter, swivel; 3/8 npt(m) x 3/8 npsm(f)	1
29	805566	TIP, spray	1
39	804474	HOSE, fluid, high pressure; 3/8 in. (10 mm) ID; 3/8 npt (mbe); 50 ft (15.2 m)	1
40	801568	COUPLING, quick release, male	1
41	244450	GUN, spray	1
42	237569	GROUND WIRE; 25 ft (7.6 m)	1
43	112860	WHEEL, pneumatic	2
44	107146	RING, retaining	2
45	154628	WASHER	2
46	112853	PLUG, tubing	2
47	236989	KIT, air regulator; see 308168	1
52	109213	O-RING; PTFE	1

Graco Warranty

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

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

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, gas engines, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

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

FOR GRACO CANADA CUSTOMERS

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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.

GRACO N.V. ; Industrieterrein '' Oude Bunders ''

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