

STAINLESS STEEL, HEAVY-DUTY

# Agitators

308371R

EN

***Pneumatic agitator for mixing and maintaining suspension of industrial coatings. For professional use only.***

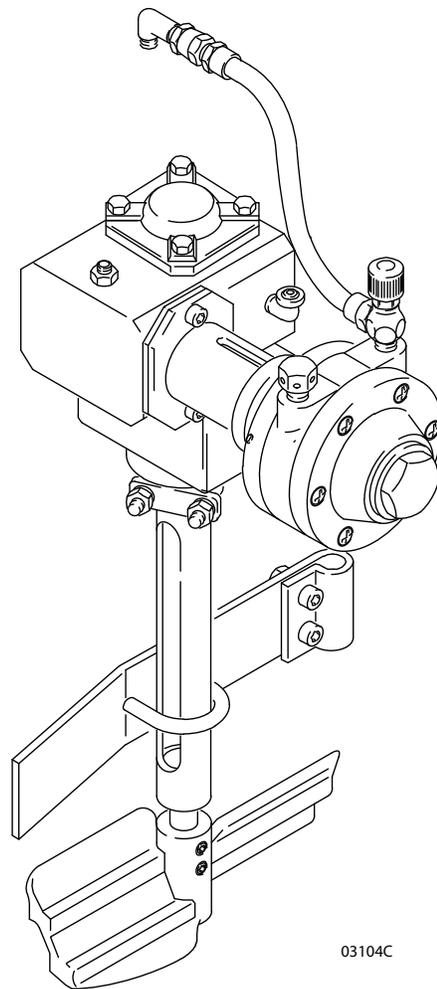
*100 psi (0.7 MPa, 7 bar) Maximum Working Pressure*

See page 2 for model information and approvals.



## **Important Safety Instructions**

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



03104C

**Model 236661**

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# Models

Tank Size gallons (liters)	Heavy Duty Agitator	Agency Approvals
5 (19)	236661	
10 (38)	236662	
15 (57)	236663	
For fluid viscosities above 800 cps (centipose)		

Agitator 262858 is a part of XM PFP assemblies. It is similar to 236663 but with a different blade. See the XM PFP Plural-Component Sprayer Setup-Operation manual for approval and installation information.

# Related Manuals

Manuals in English	Description
308369	Stainless Steel 5-, 10-, and 15-Gallon Pressure Tanks Instruction manual
3A2776	XM PFP Plural-Component Sprayer Setup-Operation manual

# 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.

 <h1 style="margin: 0;">WARNING</h1>	
   	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well-ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking).</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Never spray or flush solvent at high pressure.</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive.</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>• Keep a working fire extinguisher in the work area.</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> 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> </ul>

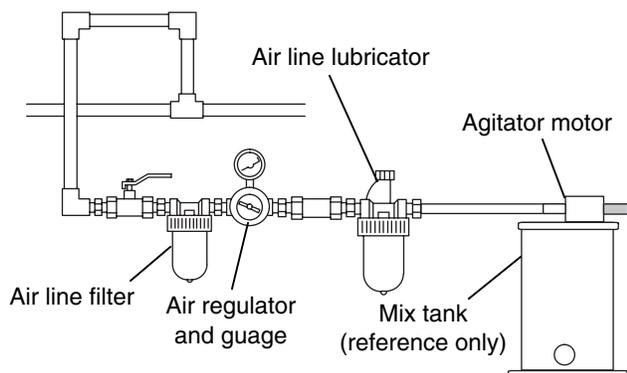
# **WARNING**

 	<p><b>EQUIPMENT MISUSE HAZARD</b> Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.</li> <li>• Turn off all equipment and follow the <b>Pressure Relief Procedure</b> when equipment is not in use.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.</li> <li>• Make sure all equipment is rated and approved for the environment in which you are using it.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
 	<p><b>MOVING PARTS HAZARD</b> Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>
	<p><b>TOXIC FLUID OR FUMES HAZARD</b> Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>• Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b> 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:</p> <ul style="list-style-type: none"> <li>• Protective eyewear, and hearing protection.</li> <li>• Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.</li> </ul>

# Installation

				
<p>To reduce the risk of fire and explosion, always maintain a minimum of 1 in. clearance inside the material drum between rotating agitator parts and any other objects, including the drum to prevent sparks from contact. This includes the edges of the drum as well as any item which may be inserted into the drum from another opening, such as feed pumps or suction tubes.</p>				

## Typical Installation



**FIG. 1 Typical Installation**

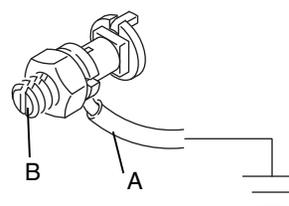
## Grounding

				
<p>The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.</p>				

All electrically conductive objects or devices must be properly grounded. Check your local electrical code for detailed grounding instructions for your area and type of equipment.

**To ground the agitator**, connect one end of the ground wire (A) to the ground connector (B) on agitator mounting bracket (see FIG. 2). Connect the other end of the ground wire to a true earth ground.

For a ground wire and clamp, order part 237569.



**FIG. 2 Grounding**

## Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.

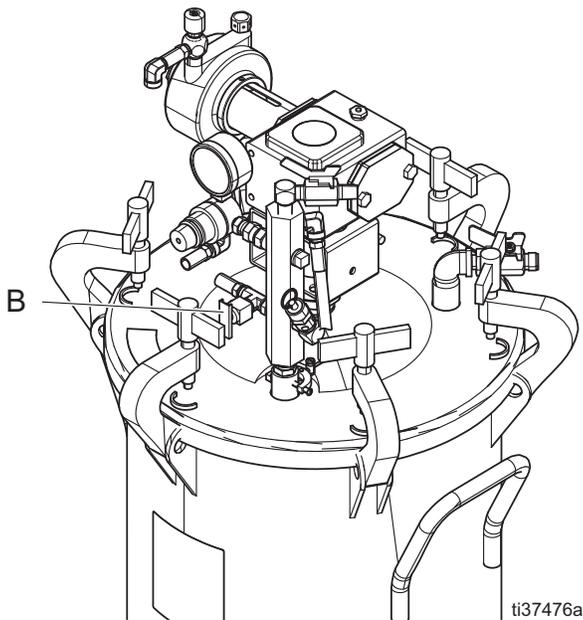


To reduce the risk of serious bodily injury, including splashing in the eyes or on the skin, or injury from moving parts, which can result if the tank pressure is not fully relieved, always follow this procedure before opening the pressure tank cover or fill port.

1. Shut off the air supply to the tank by closing the air inlet valve (A).
2. Turn the drain cock fitting (B) counterclockwise to open it.

**NOTE:** Wait until there is no air escaping through the fitting before removing the cover or opening the fill port.

3. Leave the drain cock fitting (B) open until the cover or filler cap have been reinstalled.



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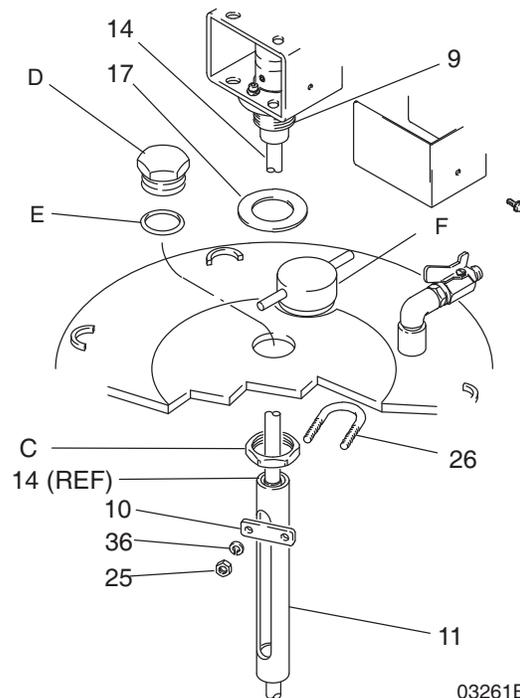
**Fig. 3 5 Gallon Tank with Heavy-Duty Agitator**

## Install an Agitator onto a Non-Agitated Tank

1. Follow the **Pressure Relief Procedure**. Remove the tank cover from the tank.
2. Unscrew and remove the hex jam nut (C), plug (D), and O-ring (E) from the tank cover.
3. Place the gasket (17) on top of the tank cover center hole. Insert the agitator drive shaft (14) through the center hole.

**NOTE:** Position the air motor so it faces away from the air regulator mounting as shown in FIG. 3.

4. Install the jam nut (C) below the tank cover. Tighten the jam nut firmly to assure a seal between the gasket (17) and tank cover.
5. Install the shaft support (11) onto the shaft housing (9). Secure with U-bolt (26), clamp (10), lock washer (36) and nut (25).
6. Tighten the U-bolt in a position leaving a 0.015 in. (0.006 mm) clearance gap between the thrust washer and the top of the shaft support. See **Parts** on page 15.



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7. **10 and 15 gallon tanks:** place the lower bearing assembly (2) and (3) on the shaft.

**5 gallon tank:** clamp U-bolt directly to shaft support (11).

8. Slide the baffle (23) over the fluid tube (K) and position the baffle about 1/2 in. (13 mm) above the highest point on the agitator paddle (12).
9. Clamp the baffle in place with U-bolt (26), washer (36), and nut (25).
10. Align the agitator paddle (12) on the agitator shaft (14) as instructed for your model, as follows:

**Models 236662 and 236663 (10 and 15 Gallon)**

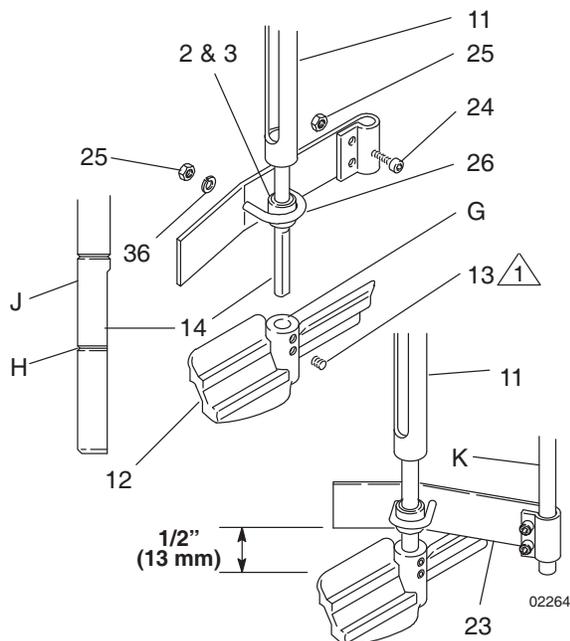
Align the top of the paddle hub (G) with the mark (H) on the agitator shaft (14).

**Model 236661 (5 Gallon)**

If a 5 gallon pail is to be placed inside the pressure tank (5 gallon tank only), align the top of the paddle hub (G) with the upper mark (J) on the agitator shaft (14).

If a pail will not be placed inside the tank, align top of hub (G) with the lower mark (H) on the agitator shaft (14).

11. Apply low strength sealant to the two setscrews (13). Firmly secure the paddle with the setscrews.



1 Apply low strength (cyanoacrylate) thread sealant.

12. Refer to FIG. 4, page 10. Remove the plug from the air inlet manifold (N).

13. Remove the elbow (37) from the end of the air hose (21) and attach to the pressure tank air inlet manifold (N).

14. Connect the swivel end of the air hose (21) to the elbow (37).

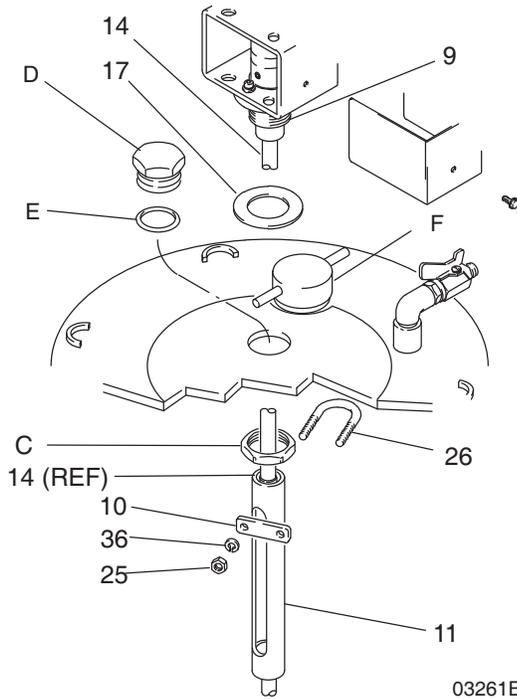
15. Remove the gear reducer oil level plug (L) from the street elbow and check the oil level in the reducer housing. The oil should never be higher than the oil level plug. If necessary, drain or add oil until the proper oil level is attained.

16. Screw the oil level plug (L) back onto the street elbow (37).

**NOTE:** Special high temperature synthetic gear oil is required for the gear reducer. Use only Graco oil, part number 217374.

## Install a Heavy-Duty Agitator

1. Follow the **Pressure Relief Procedure**, page 6. Remove the pressure tank cover from the tank.
2. Remove the upper U-bolt (26).



3. Loosen the two set screws (13) and remove the agitator paddle (12).
4. **On 10 and 15 gallon tanks:** remove the lower U-bolt (26), loosen screws (24) and slide the baffle (23) off the fluid tube (K).
5. Unscrew and remove the hex jam nut (C), gasket (17), and agitator from the tank cover.
6. Place the gasket (17) on top of the tank cover center hole. Insert the agitator drive shaft (14) through the center hole.

**NOTE:** Position the air motor so it faces away from the air regulator mounting as shown in FIG. 3, page 6.

7. Install the jam nut (C) below the tank cover. Tighten the jam nut firmly to assure a seal between the gasket (17) and tank cover.
8. Install the shaft support (11) onto the shaft housing (9). Secure with U-bolt (26), clamp (10), lock washer (36) and nut (25).

9. Tighten the U-bolt in a position leaving a 0.015 in. (0.006 mm) clearance gap between the thrust washer and the top of the shaft support. Refer to **Parts**, page 15.

10. **10 and 15 gallon tanks:** place the lower bearing assembly (2) and (3) on the shaft.

**5 gallon tank:** clamp U-bolt directly to shaft support (11).

11. Slide the baffle (23) over the fluid tube (K) and position the baffle about 1/2 in. (13 mm) above the highest point on the agitator paddle (12).

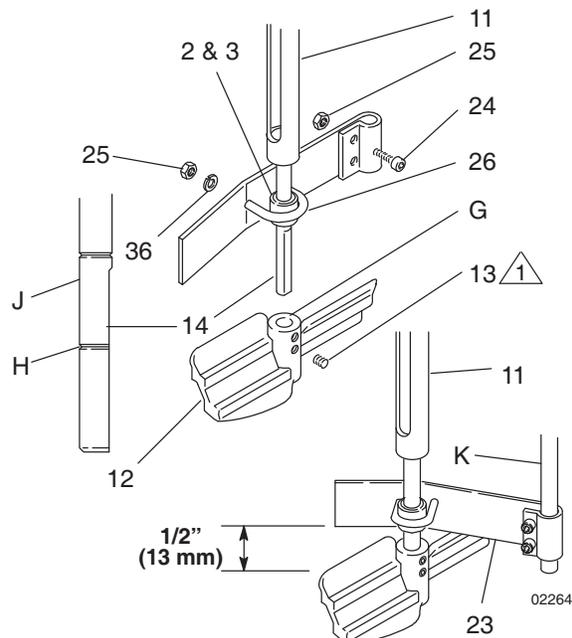
12. Clamp the baffle in place with U-bolt (26), washer (36), and nut (25).

13. Align the agitator paddle (12) on the agitator shaft (14) as instructed for your model:

**Models 236662 and 236663 (10 and 15 Gallon)**  
Align the top of the paddle hub (G) with the mark (H) on the agitator shaft (14).

### Model 236661 (5 Gallon)

If a 5 gallon pail is to be placed inside the pressure tank (5 gallon tank only), align the top of the paddle hub (G) with the upper mark (J) on the agitator shaft (14). If a pail will not be placed inside the tank, align top of hub (G) with the lower mark (H) on the agitator shaft (14).



 Apply low strength (cyanoacrylate) thread sealant.

14. Refer to FIG. 4, page 10. Connect the swivel end of the air hose (21) to the elbow (37).
15. Remove the gear reducer oil level plug (L) from the street elbow and check the oil level in the reducer housing. The oil should never be higher than the oil level plug. If necessary, drain or add oil until the proper oil level is attained. Screw the oil level plug back onto the street elbow.

**NOTE:** Special high temperature synthetic gear oil is required for the gear reducer. Use only Graco oil, part number 217374.

# Operation

				
<p>To reduce the risk of serious bodily injury, which can result if the tank pressure is not fully relieved, always follow the <b>Pressure Relief Procedure</b>, page 6, before opening the tank cover or fill port.</p>				

				
<p>Over-pressurizing the tank or accessories could cause a part to rupture. To reduce the risk of serious injury, including fluid injection and splashing in the eyes or on the skin, or property damage, never exceed the maximum air and fluid working pressure of the lowest rated component in your system.</p>				

1. Fill the pressure tank as explained in your Stainless Steel 5-, 10-, and 15-Gallon Pressure Tanks instruction manual.

2. Refer to FIG. 4, page 6. Screw on the filler cap (F), or if the tank cover was removed, place the agitator and cover on the pressure tank and secure the cover with the c-clamp handles (M).
3. Close the tank air regulator(s) by turning the knob(s) counterclockwise. Turn on the air supply.
4. To start the agitator, slowly open the needle valve (20). Adjust the speed of the agitator with the needle valve to about 40 to 60 rpm.

**NOTICE**

Do not operate the agitator at a high speed for a long period of time. Excessive agitator speed can cause foaming of fluid (making fluid unusable), or vibration and increased wear on parts. Always agitate the fluid only enough to maintain even mixing.

5. To stop the agitator, close the needle valve (20).

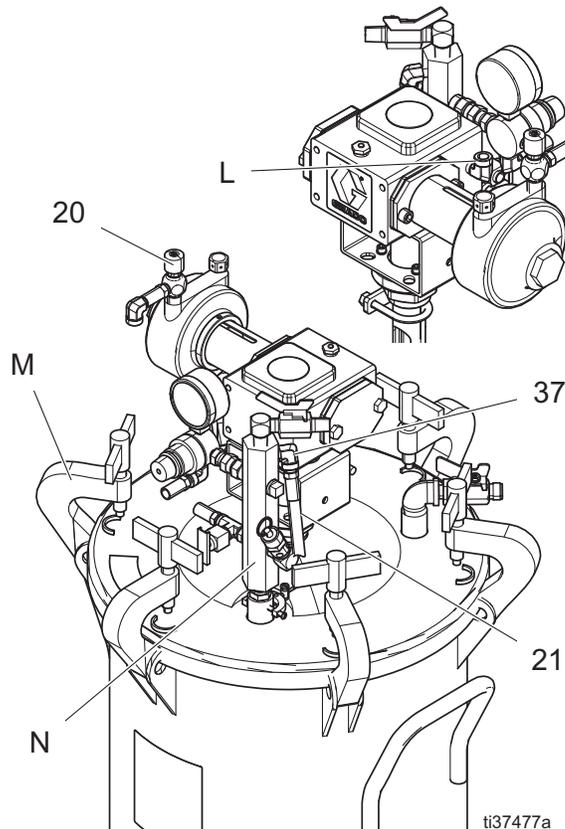


FIG. 4

# Service



To reduce the risk of serious bodily injury, including cuts, amputation of fingers, and splashing in the eyes or on the skin, always follow the **Pressure Relief Procedure** (page 6), shut off the agitator, and disconnect the air line before checking or repairing the agitator.

If the unit requires more than installation of a service kit, it is usually quickest and easiest to send the unit to the Graco distributor for repair or replacement.

## Lubricate the Heavy-Duty Agitator

**NOTICE**

To prevent air motor failure and possible damage to the agitator assembly, always keep the air motor properly lubricated.

### Lubricate the Air Motor

Install an air line lubricator for automatic air motor lubrication. Set the lubricator feed rate at 1 drop of oil per minute for high speed or continuous duty usage. Do not overfeed oil or exhaust air may become contaminated. To order a 3/8 in. npt air line lubricator, order Part Number 214847.

If an air line lubricator is not installed, the air motor must be manually lubricated every 8 hours. Lubricate the agitator air motor by placing 10–20 drops of SAE #10 light oil in the motor's air inlet. Run the agitator for about 30 seconds.

### Lubricate the Gear Reducer

Refer to FIG. 5, page 12. Remove the oil plug (T) and the oil level plug (L), drain the oil, and thoroughly flush the housing with light flushing oil. Refill with Graco oil (part number 217374) to the proper level.

Afterward, change the oil every six months or 2500 hours of operation (whichever occurs first) under normal

operating conditions. More frequent oil changes are needed under severe operating conditions or in atmospheres containing excessive moisture or abrasives. Contact your Graco distributor.

**NOTE:** No oil maintenance is required on models factory filled with Mobil Glygoyle 460 oil.

## Flush the Air Motor



Do not use kerosene or other flammable solvents to flush the air motor. Flushing with flammable solvents could cause fire or explosion and result in serious injury or property damage.



Do not use kerosene or other flammable solvents to flush the air motor. Flushing with flammable solvents could cause fire or explosion and result in serious injury or property damage.

If the motor is sluggish or inefficient, flush it with non-flammable solvent in a well ventilated area.

The recommended solvent for air motors and lubricated pumps is Gast Flushing Solvent (Part Number AH255 or AH255A) or Inhibisol Safety Solvent.

1. Disconnect the air line and muffler
2. Add several teaspoons of solvent or spray the solvent directly into the motor.
3. Rotate the shaft by hand in both directions for a few minutes.
4. Reconnect the air line, and slowly increase the air pressure until there is no trace of solvent in the exhaust air.
5. Re-lubricate the motor with a squirt of light-weight oil in the chamber.

## Air Motor Repair

If the vanes need replacing, or if foreign material is present in the motor chamber, an experienced mechanic may remove the end plate opposite the drive shaft end. Do not pry with a screwdriver. It will dent the surface of the plate and body, causing leaks. Use a puller tool, which will remove the end plate while maintaining the position of the shaft.

New vanes should have the edges with cut corners (or the notched edges, if the vanes are reversible) pointing toward the bottom of the vane slot.

## Clean the Shaft

Every week, clean any dried fluid from around the bearing (38) area of the shaft (14).

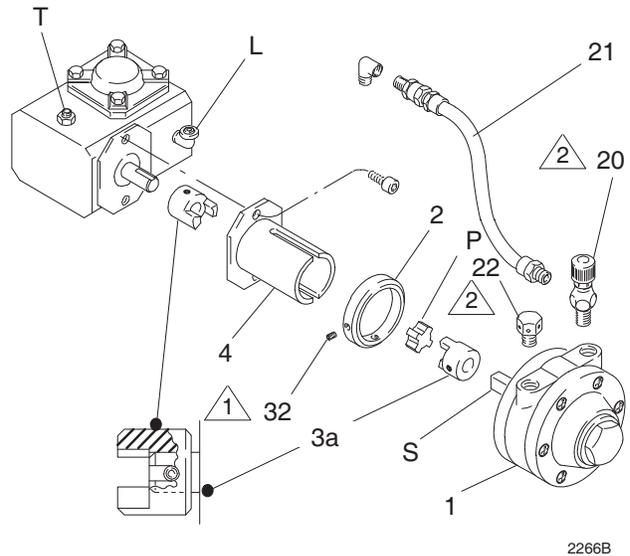
## Replace the Heavy-Duty Air Motor

### Remove the Heavy-Duty Air Motor

1. Disconnect the air hose (21).
2. Loosen the two setscrews (32) on the collar (2) and remove the air motor (1).

### Install the Heavy-Duty Air Motor

1. Place one-half of the coupling (3a) on the air motor shaft (S), flush with the end of the shaft. Tighten the coupling setscrew against the flat on the shaft.
2. Install the load cushion (P) on the gear reducer coupling half. Slide the clamp (2) onto the collar (4).
3. Align the two coupling halves (3a), and push the air motor hub into the collar (4) until it bottoms out, then back it out 0.015 in. (0.38 mm). Make sure the air motor inlet and outlet face up.
4. Apply Loctite™ Number 222 to the two clamp setscrews (32). Align the setscrews to one side of the slots on the collar (4), and tighten them.
5. Apply pipe thread sealant to the inlet (20) and outlet (22) fittings, and install them in the air motor.



- 1 Apply Loctite Number 222.  
2 Apply low-strength thread sealant.

FIG. 5

## Replace the Heavy-Duty Gear Reducer

Do not attempt to repair the gear reducer (5) yourself. Contact your Graco distributor.

Refer to FIG. 6, page 14.

1. When replacing the gear reducer, turn it upside down and remove the cap screws (33) and washers (40) from the bottom of the old gear reducer.
2. Remove the top coupling half (19a) from the old gear reducer, and install the coupling half on the new gear reducer. Wipe the screw holes clean with a rag.
3. Apply Loctite Number 271, or equivalent, to the four cap screws (33).
4. Install the cap screws (33) with the washers (40) through the bracket (6) and into the gear reducer. Make sure the three hole pattern on the bottom of the bracket (6) is orientated in relation to the gear reducer (5) as shown in FIG. 6, page 14.
5. Run the agitator to let the bracket (6) center itself. Torque the screws to 160 in-lb (18 N•m).
6. Leave the gear reducer upside down for 30 minutes to allow the Loctite to cure.

7. Set the coupling as instructed under **Set the Agitator Shaft Coupling**, on page 13.

**NOTE:** Do not use the four screws supplied with the replacement gear reducer to secure it; those screws will not properly secure the gear reducer. Use the cap screws and washers (33 and 40) removed from the old gear reducer. Be careful not to spill any oil from the gear reducer.

## Service the Agitator Shaft and Couplings

### Set the Agitator Shaft Coupling

1. With the agitator shaft (14) pushed up against the washer (15a), secure the lower portion of the coupling half (19b) to the shaft by tightening the coupling setscrew against the flat on the shaft. Leave about a 0.015 in. gap between the coupling half and washer (15b).
2. Secure the upper coupling half (19a) to the gear reducer shaft by tightening the coupling setscrew into the keyway. Leave about a 0.015 in. gap between each of the coupling halves (19a, 19b) and the load cushion (R).

### Replace the Agitator Shaft

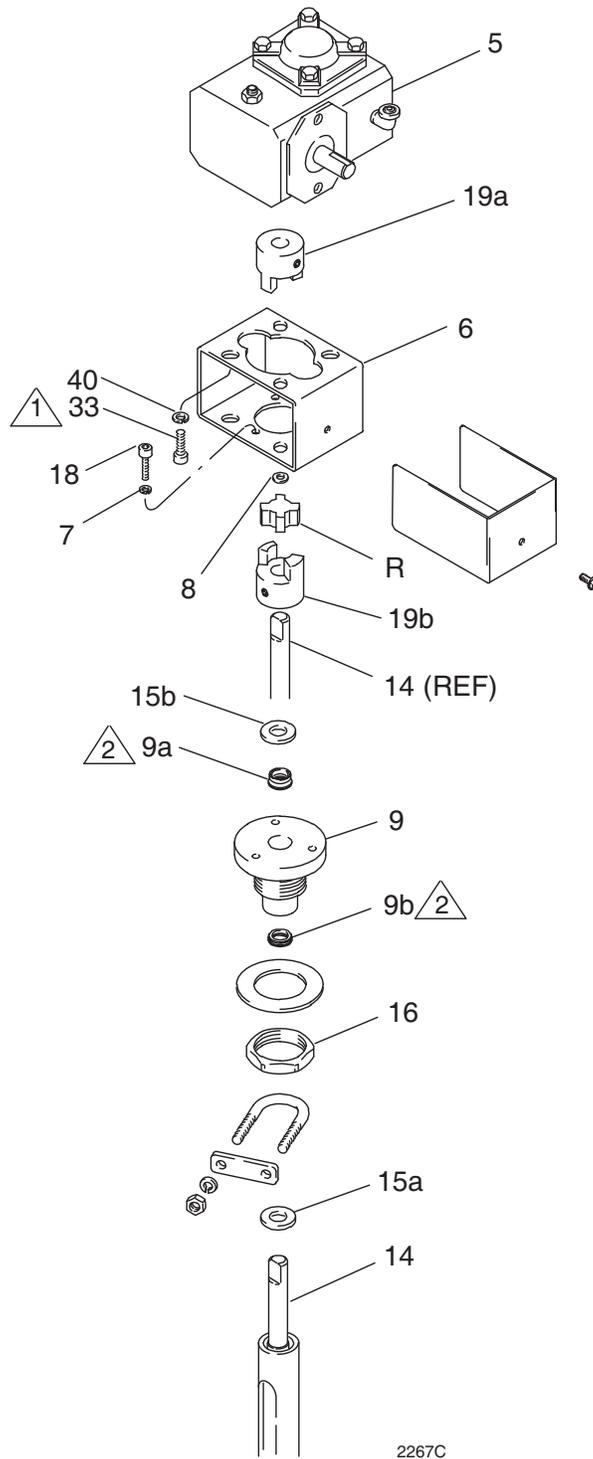
1. Remove the agitator paddle. Remove the setscrew from the lower coupling (19b). Pull out the agitator shaft (14) and install the new shaft.
2. Replace the agitator paddle.
3. With the agitator shaft (14) pushed up against the washer (15a), secure the lower portion of the coupling half (19b) to the shaft by tightening the coupling setscrew against the flat on the shaft. Leave about a 0.015 in. gap between the coupling half and washer (15b).

### Replace the Coupling

1. Remove the three cap screws (18), washers (7) and spacers (8) from the mounting bracket (6).
2. Lift the air motor and gearbox off the tank cover. Remove the two coupling halves (19a, 19b) from the shaft ends.
3. Install the new coupling halves on the shaft ends. Replace the air motor/bracket assembly and the three cap screws (18), washers (7) and spacers (8) to fasten the mounting bracket.

### Replace the Shaft Seals

1. Remove the three cap screws (18), washers (7), and spacers (8) from mounting bracket (6), and move the air motor assembly.
2. With air motor assembly removed, remove the setscrew from the lower coupling half (19b). Pull out the agitator shaft (14).
3. Remove the hex nut (16) and remove the shaft housing (9). Remove the seals (9a, 9b) from the shaft housing, and install the new seals.
4. Reinstall the shaft housing and shaft. Use installation steps listed in **Set the Agitator Shaft Coupling**, page 13.



1 Apply Loctite Number 271.  
Torque to 160 in-lb (18 N·m)

2 Install seals with open spring-loaded  
side toward tank

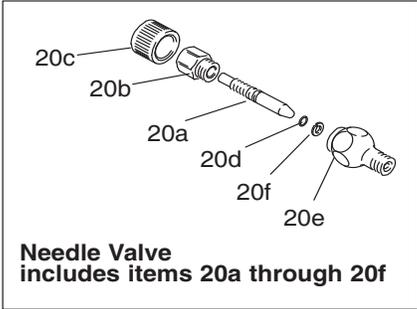
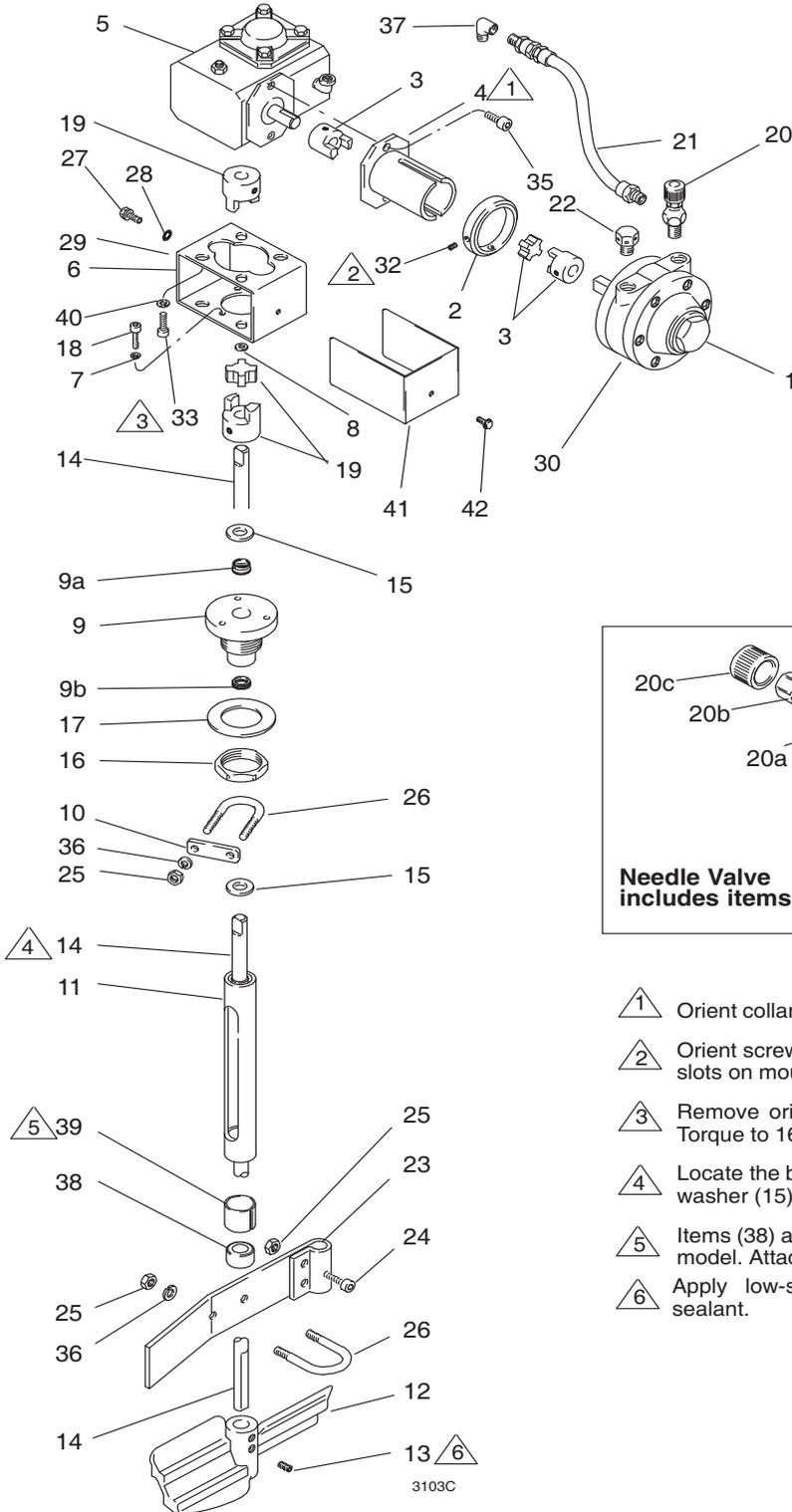
FIG. 6

2267C

# Parts

## Stainless Steel, Heavy-Duty Agitators

Models 236661 (5 gallon), 236662 (10 gallon), 236663 (15 gallon)



- 1 Orient collar (4) with slots facing up and down.
- 2 Orient screws (32) on collar (2) to either side of slots on mounting collar (4).
- 3 Remove original bolts, and replace with (33). Torque to 160 in-lbs (18 N-m).
- 4 Locate the bottom shoulder of shaft (14) against washer (15) when assembling coupler (19).
- 5 Items (38) and (39) are not used on the 5-gallon model. Attach item (26) to (11) for this model.
- 6 Apply low-strength (cyanoacrylate) thread sealant.

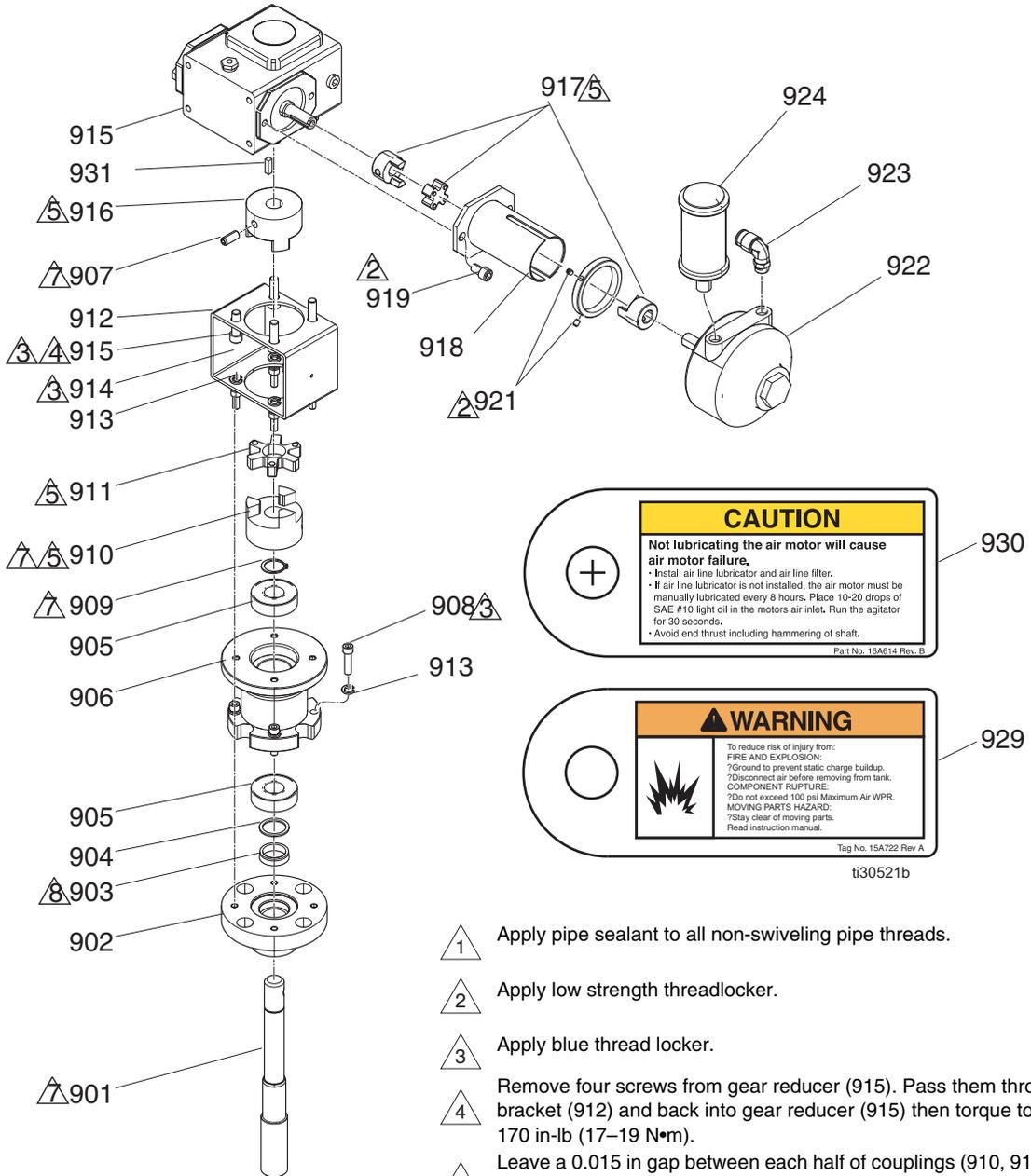
## Stainless Steel, Heavy-Duty Agitators Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	162425	MOTOR, air	1	20d	157628	·O-RING; buna-N	1
2	181849	COLLAR	1	20e	165722	·BODY, valve	1
3	100828	COUPLING, flexible	1	20f	166531	·WASHER, nylon	1
4	220416	COLLAR, mounting; Includes items 4a & 4b	1	21	160023	HOSE, coupled; 400 psi (2.8 MPa, 28 bar) maximum working pressure	1
4a	181848	SLEEVE, mounting, air motor	1	22	156969	MUFFLER, exhaust	1
4b	170751	PLATE, mounting	1	23	171989	BAFFLE, agitator, sst	1
5	181794	REDUCER, gear	1	24	112222	SCREW, cap, socket head; 1/4-20 x 1 in., (25 mm) sst	2
6	181749	BRACKET, mounting	1	25	112223	NUT, hex, regular; 1/4-20, (19 mm) sst	6
7	100020	WASHER, lock	1	26	110278	U-BOLT, clamp; sst	2
8	108462	SPACER	1	27	111593	SCREW, grounding	1
9	236092	HOUSING, shaft; Includes replaceable items 9a & 9b	1	28	157021	WASHER, lock, internal	1
9	103553	·SEAL, shaft	1	29▲	186620	LABEL, grounding symbol	1
9	104431	·SEAL, shaft	1	30▲	15A722	LABEL, warning	1
10	112533	CLAMP, plate, sst	1	32	101118	SCREW, set, sch; 10-24 x 0.25 in. (6 mm) long	2
11	210576	SUPPORT, shaft; Includes replaceable item 38	1	33	110298	SCREW, cap, sch; 1/4-20 x 0.875 in. (22 mm) long	4
12*	236098	PADDLE, agitator; plastic	1	35	116940	SCREW, cap; 5/16-18 x 1/2 in. (13 mm) long	2
13	131497	SCREW, set, cup, pt, 1/4-20 x 0.5 in. (13 mm)	2	36	104123	WASHER, lock, sst	4
14	188886	SHAFT, agitator, 15 in., 5 gal size (18.9 liters); sst	1	37	112307	ELBOW, street; 90- x 1/8-27 npt(f) 1/8-27 npt(m)	1
14	188887	SHAFT, agitator, 20.75 in., 10 gal size (37.8 liters); sst	1	38	171970	BEARING PTFE; Included with Models 236662 and 236663 only	1
14	188888	SHAFT, agitator, 31 in., 15 gal size (56.7 liters); sst	1	39	187324	HOUSING, bearing; Included with Models 236662 and 236663 only; sst	1
15	104373	WASHER, thrust; 1/2 in. ID x 1 in. OD	1	40	170772	WASHER, flat; 0.26 x 0.69 dia; sst	4
16	188784	NUT, jam, hex; 1-1/2 in.-12; stainless steel	2	41	194701	GUARD	1
17	196309	GASKET, LDPE foam	1	42	100078	SCREW, #8-32x3/8 in.	1
18	102598	SCREW, cap, socket head; 10-32 x 0.5 in. (13 mm)	3				
19	108463	COUPLING, flexible	1				
20	206264	VALVE, needle; Includes items 20a to 20f	1				
20a	166529	NEEDLE, valve	1				
20b	166532	NUT, packing	1				
20c	164698	KNOB, packing	1				

\* Stainless steel agitator paddle 186517, 304 stainless steel welded construction, replaces plastic agitator paddle 236098.

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

# Xtreme-Duty Agitator Drive Train (262858)



- 1 Apply pipe sealant to all non-swiveling pipe threads.
- 2 Apply low strength threadlocker.
- 3 Apply blue thread locker.
- 4 Remove four screws from gear reducer (915). Pass them through bracket (912) and back into gear reducer (915) then torque to 150–170 in-lb (17–19 N•m).
- 5 Leave a 0.015 in gap between each half of couplings (910, 911, 916, 917).
- 7 When ordering a replacement coupling: Remove set screw supplied with couplings (910, 916) and discard. Replace with set screw (931).
- 8 Open side of u-cup seal (903) must face down inside housing (902).

**CAUTION**

**Not lubricating the air motor will cause air motor failure.**

- Install air line lubricator and air line filter.
- If air line lubricator is not installed, the air motor must be manually lubricated every 8 hours. Place 10-20 drops of SAE #10 light oil in the motors air inlet. Run the agitator for 30 seconds.
- Avoid end thrust including hammering of shaft.

Part No. 16A614 Rev. B

**WARNING**

To reduce risk of injury from:

- FIRE AND EXPLOSION:**
  - ?Ground to prevent static charge buildup.
  - ?Disconnect air before removing from tank.
- COMPONENT RUPTURE:**
  - ?Do not exceed 100 psi Maximum Air WPR.
- MOVING PARTS HAZARD:**
  - ?Stay clear of moving parts.

Read instruction manual. Tag No. 15A722 Rev A

## Xtreme-Duty Agitator Drive Train Parts List

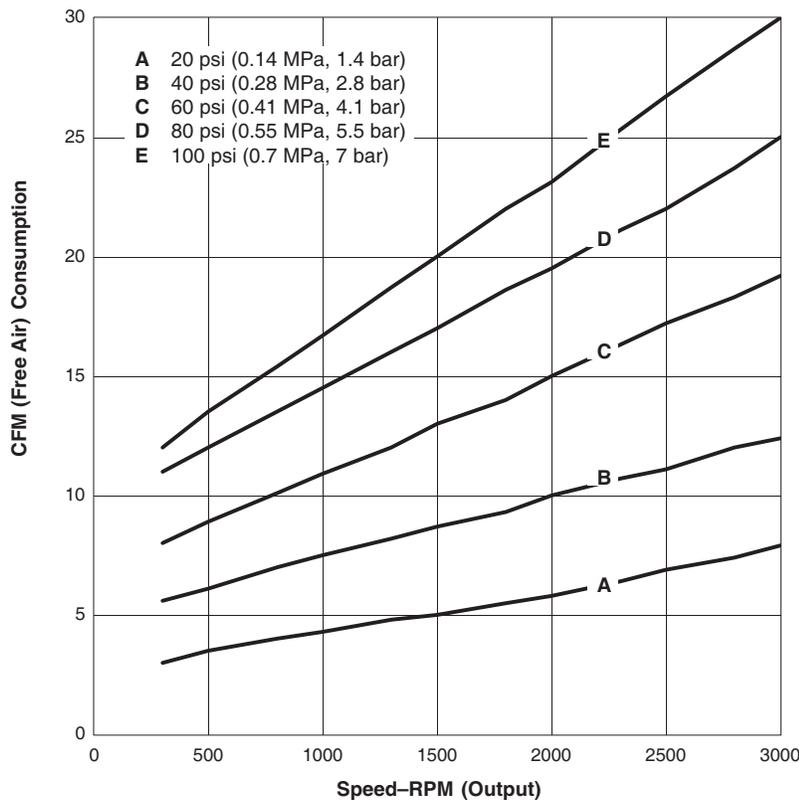
Ref.	Part	Description	Qty.
901	16P919	SHAFT, agitator, upper	1
902	16U219	HOUSING, agitator	1
903	----	SEAL, PTFE	1
904	----	SPACER, shaft, agitator	1
905	122774	BEARING, 3/4 ID x 1-3/4 OD	2
906	16P920	HOUSING, bearing, agitator	1
907	----	SCREW, SHCS, 5/16-18 x 0.75	2
908	112222	SCREW, socket cap head	4
909	----	RING, retaining, external, 0.75	1
910	122761	HOUSING, alignment, hub	1
911	112760	COUPLING, alignment, disk, TPE	1
912	16P922	BRACKET, adapter, agitator	1
913	C19209	WASHER, lock	8
914	101682	SCREW, socket cap head	4
915	181794	GEAR, reducer	1
916	16P923	COUPLER, adapter	1
917	100828	COUPLING, flexible	1
918	16T063	COLLAR, mounting	1
919	116940	SCREW, SHCS, 5/16-18	2
920	181849	COLLAR	1
921	101118	SCREW	2
922	111310	MOTOR, air, rotary	1
923	115841	FITTING, elbow	1
924	129069	MUFFLER, air, exhaust	1
929▲	15A722	LABEL, warning	1
930▲	16A614	LABEL, caution	1
931	120376	KEY, square, 0.188 x 0.62	1

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

# Technical Specifications

Stainless Steel, Heavy-Duty Agitators		
	US	Metric
Air motor	Air driven, gear reduced, 1/2 HP (373 W)	
Maximum air pressure	100 psi	0.7 MPa, 7 bar
Gear ratio	Reduced 20:1; shaft rpm is 1/20 of air motor rpm	
Weight	21.0 lb	9.5 kg
Wetted Parts	304 and 316 stainless steel, PTFE, Zytel, and bronze	
<b>Noise (dBa)</b>		
<b>Sound pressure</b>		
At no load at maximum rpm	83.4 dB(A)	
Under load at 50 rpm	64.0 dB(A)	
<b>Sound power</b>		
At no load at maximum rpm	96.6 dB(A)	
Under load at 50 rpm	77.2 dB(A)	
<i>Sound pressure measured 3 feet (1 meter) from equipment.</i>		
<i>Sound power measured per CAGI-PNEUROP, 1971.</i>		
<b>Notes</b>		
All trademarks or registered trademarks are the property of their respective owners.		

## Air Consumption Chart



# Graco Standard Warranty

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