

AIR DRIVEN

Expanding Blade Mixer

3A5453D

EN

Expanding blade bung-mounted agitator for maintaining suspension and even mixing in polyurethane spray foam resins and other industrial paints and coatings. For professional use only.

Not approved for use in European explosive atmosphere locations.

Model 26C150

High Viscosity, up to 2000 centipoise

Model 26C818

Low Viscosity, up to 1000 centipoise

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



Important Safety Instructions

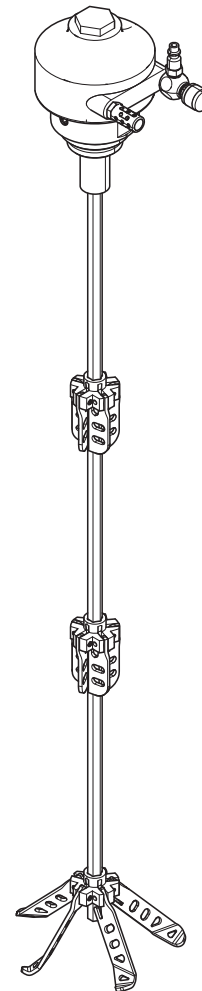
Read all warnings and instructions in this manual before using the equipment.
Save these instructions.



WARNING

FIRE AND EXPLOSION HAZARD

Use only non-flammable or water-based materials with this equipment. Do not use materials having flash points lower than 140° F (60° C). For more information about your material, request Safety Data Sheet (SDS) from the supplier.






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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.

 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> Do not use or clean with materials having flash points lower than 140° F (60° C). Use only non-flammable or water-based materials. For complete information about your material, request the Safety Data Sheets (SDSs) from the material distributor or retailer. Use equipment only in well-ventilated area. Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking). Ground all equipment in the work area. See Grounding instructions. Keep work area free of debris, including solvent, rags and gasoline. Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. Use only grounded hoses. Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area.
	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> Do not operate the unit when fatigued or under the influence of drugs or alcohol. Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Specifications in all equipment manuals. Use fluids and solvents that are compatible with equipment wetted parts. See Technical Specifications 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. Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use. Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards. Make sure all equipment is rated and approved for the environment in which you are using it. Use equipment only for its intended purpose. Call your distributor for information. Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not kink or over bend hoses or use hoses to pull equipment. Keep children and animals away from work area. Comply with all applicable safety regulations.

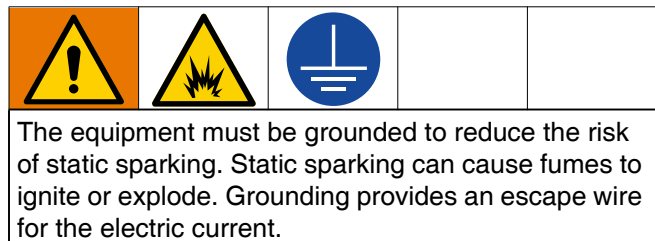


WARNING

 	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.
  	<p>PRESSURIZED EQUIPMENT HAZARD</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"> • Follow the Pressure Relief Procedure when you stop spraying/dispensing and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.
	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>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"> • Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>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"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Installation

Grounding



See FIG. 1. Loosen the grounding screw (GS). Insert one end of a 12 ga. minimum ground wire behind the grounding screw and tighten the screw securely. Connect ground clamp to a true earth ground. A ground wire and clamp, Part 238909, is available from Graco.

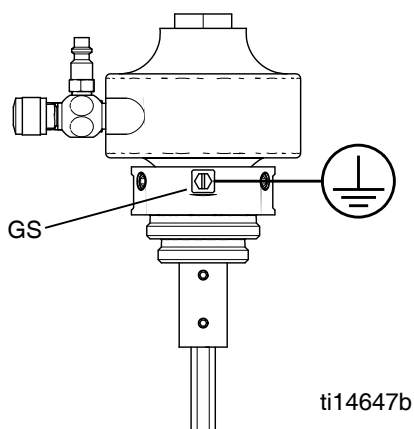
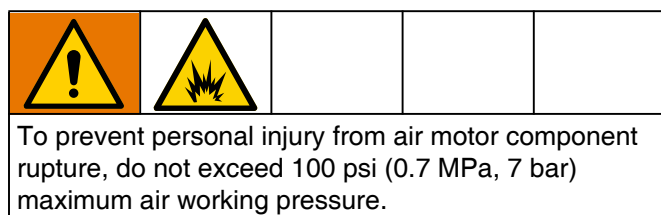


FIG. 1: Ground Screw

Air Requirements



Typical air requirements for continuous use at 400 rpm and 100 psi (0.7 MPa, 7 bar) inlet pressure:

- high viscosity air motor -- 22 scfm (0.62 m³/min)
- low viscosity air motor -- 12 scfm (0.34 m³/min)

Air Line Accessories

Install the following accessories in the order shown in FIG. 2, using adapters as necessary.

Bleed-type master air valve (A): required in your system to relieve air trapped between it and the air motor when the valve is closed.

Air filter (B): removes harmful dirt and moisture from the compressed air supply. Order part 106148 for 3/8 npt or 106149 for 1/2 npt.

Air regulator and gauge (C): to control air motor and agitator speed.

Air line lubricator (D): downstream from the filter, 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 manually lubricate the air motor, see **Lubricate the Air Motor**, page 9. A 3/8 in. npt air line lubricator, Part 214847, is available from Graco.

NOTICE

Not lubricating the air motor will cause air motor failure.

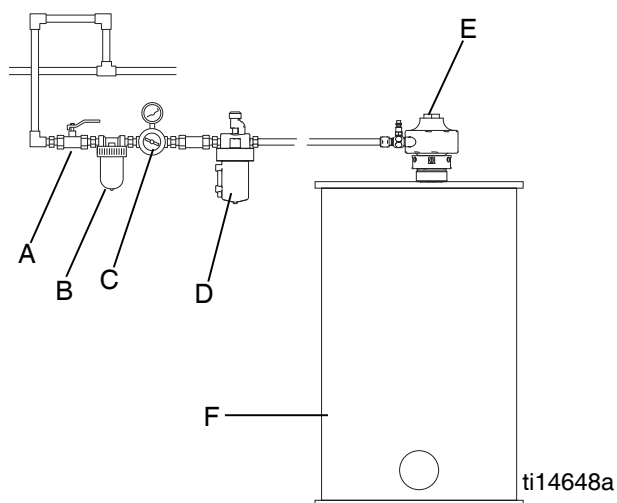




FIG. 2: Typical Installation

Key:

- A Bleed-type master air valve
- B Air filter
- C Air regulator and gauge
- D Air line lubricator
- E Agitator motor
- F Mix tank (reference only)

Install the Agitator

				
<p>To prevent fire and explosion from sparks due to contact:</p> <ul style="list-style-type: none"> Always maintain a minimum of 1 in. (25.4 mm) clearance between agitator parts and container sides, while stationary or rotating. The blades are allowed to come into contact with the base of the container when the agitator is not operating and the blades are at rest. Use only non-flammable or water-based materials, or materials having a flash point lower than 140° F (60° C). 				

- Due to variability in drum heights, the lowest set of blades may contact the bottom of the drum. To move the blades, loosen the setscrew on the hub and slide the assembly up or down to the desired position. The setscrew must always remain on the top, with the blades hanging down, so the blades will pass into and out of the bung hole.

NOTE: For many drums, the ideal height for the bottom blade is 0.5 in.-1.0 in. (13 mm-25 mm) above the shaft. The ideal height may vary based on the drum.

NOTE: Ensure at least 1 in. (25 mm) of clearance between the shaft and the base of the container.

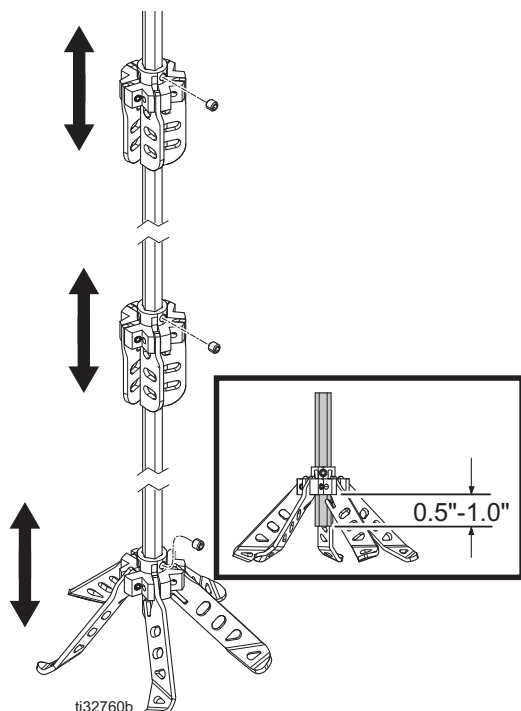


FIG. 3: Adjust Location of Hub/Blade Assemblies

- To install the agitator on the container cover, drop the folding blade sections through the drum bung hole, then screw the bung adapter into the bung hole. See **Dimensions**, page 14.

NOTE: During installation, if resistance is felt from the blades contacting the container bottom, continue to gently screw the bung adapter into the drum. This motion will cause the blades to spin outward. If the resistance does not change, verify that the shaft is not contacting the base of the container.

NOTICE

Keep the agitator tightly mounted to the drum bung to prevent damage to the threads from vibration.

- Position the air motor so the air line can be attached easily to the needle valve 1/8 npt inlet, without obstructing any other system components.
- Attach an air line quick disconnect valve or ball valve for main air shutoff. Order coupler (part 208536) and fitting (part 169969).
- Attach the air line between the needle valve 1/8 npt inlet and the 1/8 npt air supply manifold outlet.

Angled Adapter

If the agitator is used on a drum with an off-center bung and the blades would contact the side of the drum, the angled adapter must be used to avoid this contact.

1. Thread the locking ring (16H295) onto the angled adapter (16H294) by hand, as far as it will go.
2. Thread the angled adapter into the bung until it bottoms out, then back it out until the widest portion on of the adapter top is pointing just to the left of the center of the drum (Fig. 4).
3. Turn down the locking ring until it contacts the drum. Use an appropriately sized pipe wrench or adjustable wrench to tighten the adapter down until the widest portion of the adapter top is in line with the drum.

NOTE: The locking ring (16H295) and the angled adapter (16H294) are sold separately.

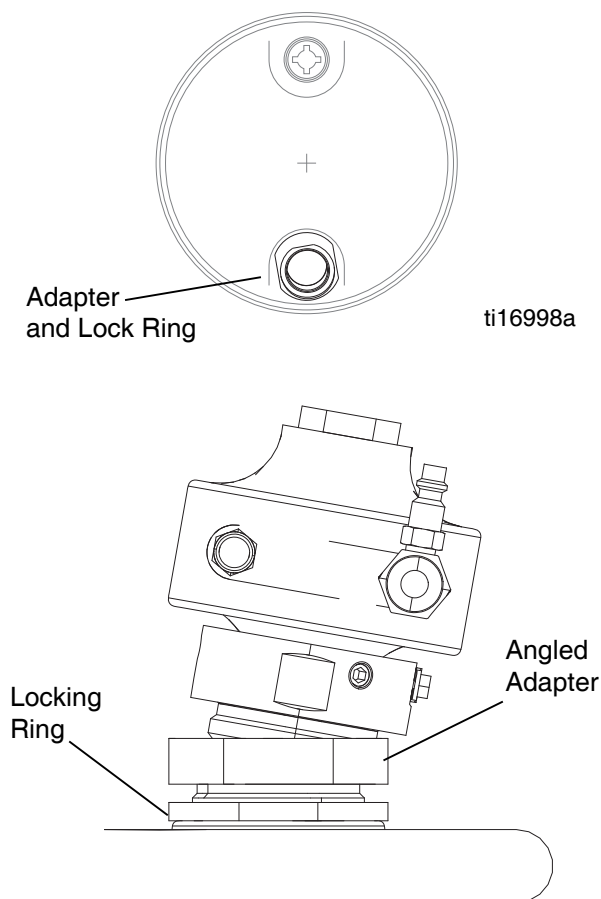








FIG. 4: Angled Adapter

Operation

To avoid personal injury due to moving parts, never operate the agitator outside of a drum.

Pressure Relief Procedure

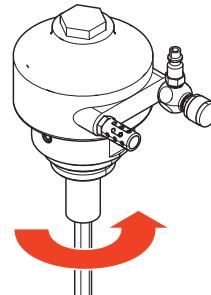
This equipment stays pressurized until pressure is manually relieved. To help prevent injury from pressurized fluid, such as splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

1. Close the needle valve (11) and close the main air shutoff valve (A). Turn off the air regulator, if equipped.
2. Disconnect the air line from the motor air inlet.

Operate the Agitator

1. Fill the fluid supply container.
2. With the needle valve (11) in the closed position, open the master air valve (A).
3. Start the agitator by slowly opening the needle valve (11) and run it slowly.

NOTE: For best performance, ensure the shaft and blades are spinning counter-clockwise when viewed from above. The direction of rotation can be changed by reversing the position of the air inlet and muffler on the motor.



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FIG. 5

4. Use the needle valve (11) to regulate the agitator speed. Set the agitator at a speed that minimizes vibration.

NOTE: If an air shutoff valve is installed in the supply line and used to stop the agitator, the same agitator speed will be set each time the agitator is used.

5. Operate the agitator continuously while supplying paints or other fluids to the system.

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 the fluid unusable), vibration, and increased wear on parts. Always agitate the fluid only enough to maintain even mixing.

6. To stop the agitator, close the master air valve (A) or close the agitator needle valve (11).

Check Fluid Viscosity

If the agitator is in a closed drum, remove the agitator to check fluid viscosity or siphon some fluid from the 3/4 npt drum port.

Maintenance

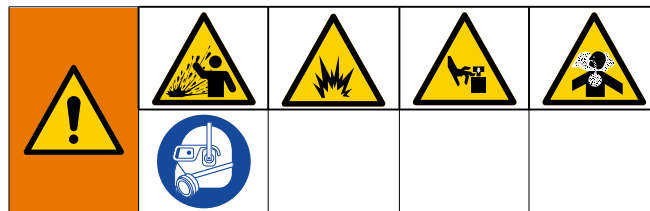
Lubricate the Air Motor

NOTICE

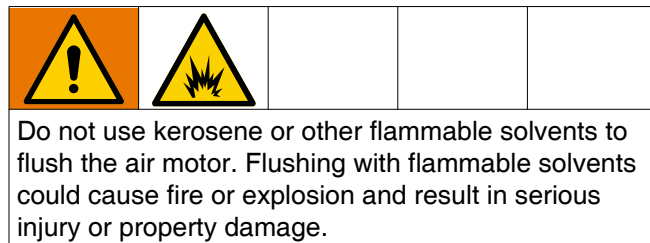
Not lubricating the air motor will cause air motor failure.

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 to 20 drops of SAE #10 lightweight oil in the motor's air inlet. Run the agitator for about 30 seconds.

Repair



Flush the Air Motor



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



1. Follow the **Pressure Relief Procedure**, page 8.
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 apply pressure until there is no trace of solvent in the exhaust air.
5. Lubricate the motor with a squirt of lightweight oil in the chamber.

Service

Air Motor

1. Follow the **Pressure Relief Procedure**, page 8.
 2. To remove the air motor for service, use a 3/16 hex to remove the three setscrews (9) on the bung adapter (4).
 3. Lower the adapter (4) on the shaft (2) so coupler (3) is accessible.
 4. Use a 1/8 hex to remove the top two setscrews (8) on the coupler (3).
 5. Lift the air motor (1) straight up off the coupler (3).
- If the air motor (1) requires more than installation of a service kit, it is usually quickest and easiest to send it to the Graco distributor for repair or replacement.
 - If the air motor blades need replacing or 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.

Shaft and Agitator Blades

				
To prevent fire and explosions from sparks due to contact, clean only using non-flammable material or materials having a flash point lower than 140° F (60° C).				

1. Remove the shaft (2) from the drum. Clean with a compatible solvent and inspect the shaft (2) and blades (6, 7) for wear or damage.
2. If parts need replacing, follow steps 1-4 under **Air Motor** to remove the air motor.
3. Use the 1/8 hex to remove the other two setscrews (8) on the coupler.
4. Slide the shaft off (2).
5. If needed, use a 3 mm (1/8 in.) hex to remove the setscrew (8) on the hub assembly (6 or 7). Slide the hub/blade assembly off of the shaft.
6. To install a new hub/blade assembly, slide it onto the shaft. The setscrew must always remain on the top, with the blades hanging down, so the blades will pass into and out of the bung hole.

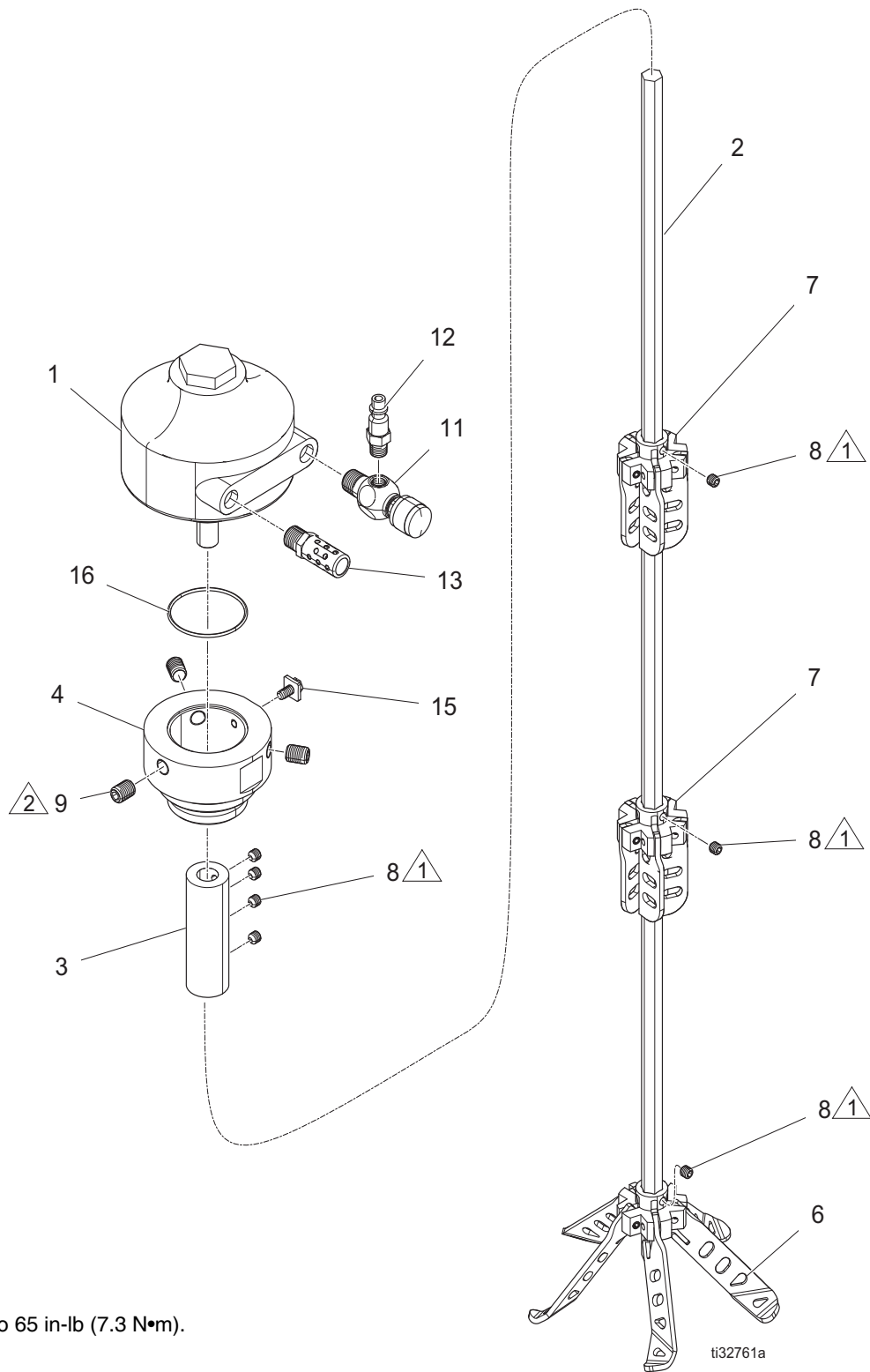
NOTE: Air Motor Repair Kits are available. Order part 224954 for Model 26C150 (high viscosity) or part 207335 for Model 26C818 (low viscosity).

Reassembly

1. Slide the shaft (2) into the coupler (3). Use a 1/8 hex to tighten the setscrews (8). Torque to 65 in-lb (7.3 N•m).
2. Raise the bung adapter (4) on the shaft (2) to reconnect to the air motor. Use a 3/16 hex to tighten the three setscrews (9) on the bung adapter. Torque to 80 in-lb (9 N•m).

[illegible]

Parts



△ Torque to 65 in-lb (7.3 N•m).

△ Torque to 80 in-lb (9 N•m).

Part No/Description

Ref.	Part	Description	Qty.
1*	111310	MOTOR, air, high viscosity	1
	16A871	MOTOR, air, low viscosity	
2**	-----	SHAFT, drive	1
3	24D686	COUPLER, agitator; includes 4 setscrews (Item 8)	1
4	24D687	ADAPTER, bung, double; includes 3 setscrews (Item 9) and ground screw (Item 15)	1
6**	17V032	HUB, assembly, with 3.5 in. blades; includes setscrew (Item 8)	1
7**	24C860	HUB, assembly, with 2.5 in. blades; includes setscrew (Item 8)	2
8	102207	SETSCREW, 1/4-20, sst (included with Items 3, 6, and 7)	7
9	101679	SETSCREW, 3/8-24, sst (included with Item 4)	3

Ref.	Part	Description	Qty.
11	206264	VALVE, needle	1
12	169969	FITTING, air line	1
13	113779	MUFFLER	1
15	116343	GROUND SCREW	1
16	113082	O-RING	1
19▲	17E503	TAG, safety, agitator (not shown)	1

* Air Motor Repair Kits may be purchased separately. Order part 224954 for Model 26C150 (high viscosity) or part 207335 for Model 26C818 (low viscosity).

** Available in Shaft and Blade Kit 17V342.

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

Accessories

Ref.	Part	Description	Qty.
17	16H294	ADAPTER, angled (see Angled Adapter , page 7)	1
18	16H295	RING, locking (see Angled Adapter , page 7)	1

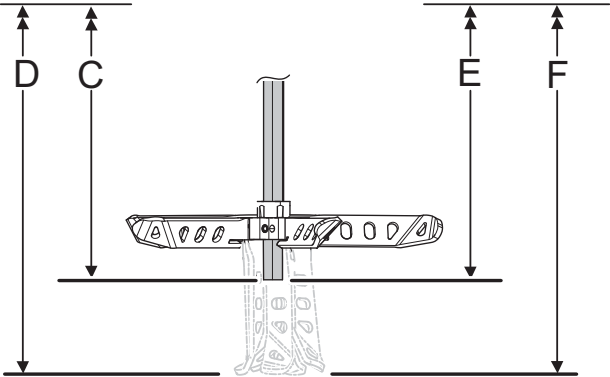
Dimensions

2 in. Bung Adapter

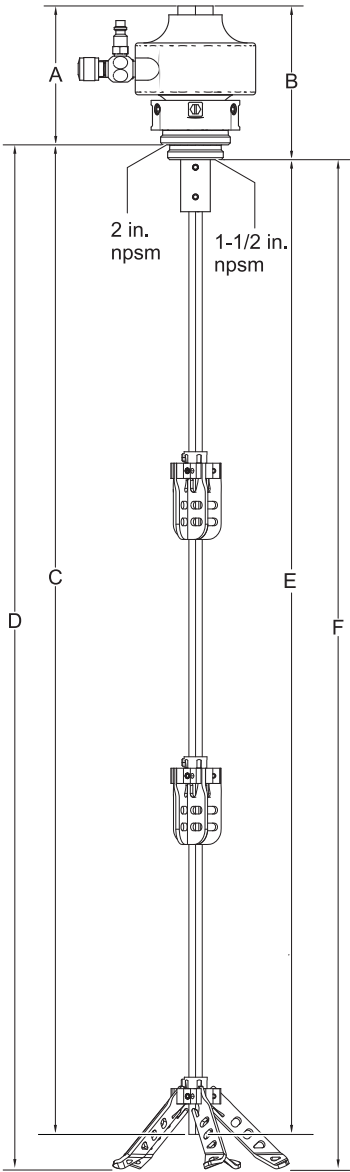
Dimension	Model 26C150 (high viscosity)	Model 26C818 (low viscosity)
A	5.1 in. (130 mm)	4.2 in. (107 mm)
C (Minimum)	33 in. (838 mm)	33 in. (838 mm)
D (Maximum)	35.1 in. (891 mm)	35.1 in. (891 mm)

1-1/2 in. Bung Adapter

Dimension	Model 26C150 (high viscosity)	Model 26C818 (low viscosity)
B	5.6 in. (142 mm)	4.7 in. (119 mm)
E (Minimum)	32.5 in. (826 mm)	32.5 in (826 mm)
F (Maximum)	34.6 in. (879 mm)	34.6 in. (879 mm)



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Technical Specifications

Air Driven Expanding Blade Mixer Model 26C818 Low Viscosity		
	US	Metric
Maximum working pressure	100 psi	0.7 MPa, 7 bar
Maximum recommended agitator speed	500 rpm	
Air consumption at 400 rpm with 100 psi (0.7 MPa, 7 bar) air inlet pressure	12 scfm	0.34 m³/min
Weight	9.8 lb	4.5 kg
Bung adapter thread sizes	1 1/2-11.5 npsm and 2-11.5 npsm	
Wetted parts		
	303, 18-8, and 304 stainless steel	
Noise (dBa)		
Sound pressure	72.32 dB(A) @ 100 psi (0.7 MPa, 7 bar)	
Sound power	80 dB(A) @ 100 psi (0.7 MPa, 7 bar)	
Sound pressure measured 3.28 feet (1 meter) from equipment.		
Sound power measured per ISO-9614-2.		

Air Driven Expanding Blade Mixer Model 26C150 High Viscosity		
	US	Metric
Maximum working pressure	100 psi	0.7 MPa, 7 bar
Maximum recommended agitator speed	500 rpm	
Air consumption at 400 rpm with 100 psi (0.7 MPa, 7 bar) air inlet pressure	22 scfm	0.62 m ³ /min
Weight	13.3 lb	6.0 kg
Bung adapter thread sizes	1 1/2-11.5 npsm and 2-11.5 npsm	
Wetted parts		
	303, 18-8, and 304 stainless steel	
Noise (dBa)		
Sound pressure	75.74 dB(A) @ 100 psi (0.7 MPa, 7 bar)	
Sound power	82.32 dB(A) @ 100 psi (0.7 MPa, 7 bar)	
Sound pressure measured 3.28 feet (1 meter) from equipment.		
Sound power measured per ISO-9614-2.		

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Standard Warranty

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

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

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

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

FOR GRACO CANADA CUSTOMERS

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Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM 3A5453

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