Operation - Repair

RS™ Gun Cutter Assemblies

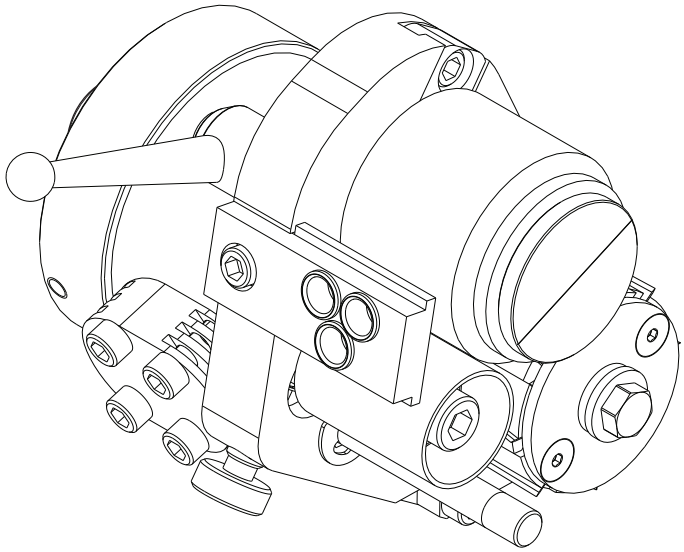
332574F

EN

For use with the RS Guns.

For professional use only.

Important Safety Instructions
Read all warnings and instructions in this manual and the RS Gun and Cutter, Operation-Repair manual. Save all instructions.



CE Ex II 2 G c T6

PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

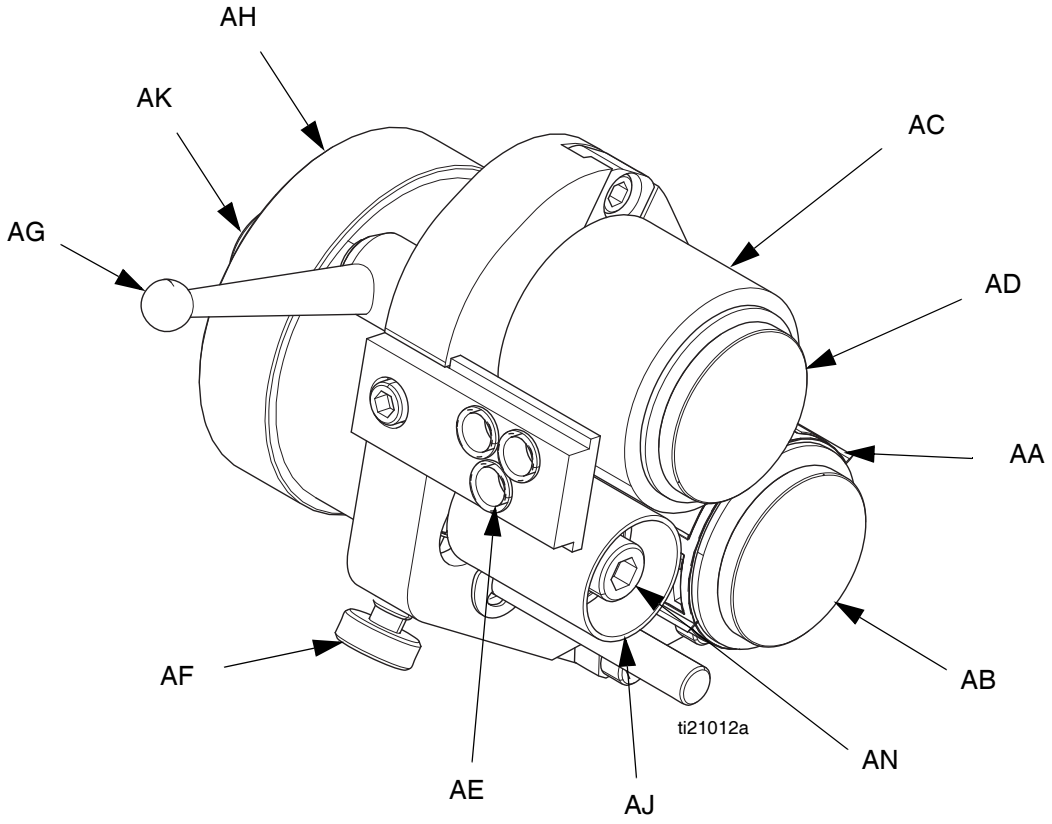
Related Manuals

The following is a list of component manuals written in English. These manuals and any translated versions available can be found at www.graco.com.

Part	Description
3A0232	RS Gun and Cutter, Operation-Repair
3A1226	Universal Adapter Kit 257754 Instructions
3A2054	Indy or Formula Adapter Kit 125797 Instructions
3A2079	LPA2 Adapter Kit 125843 Instructions

Component Identification

Cutter, 24E512, External Mix Gun, Series C and Prior
Cutter, 24P681, Internal Mix Gun, Series A

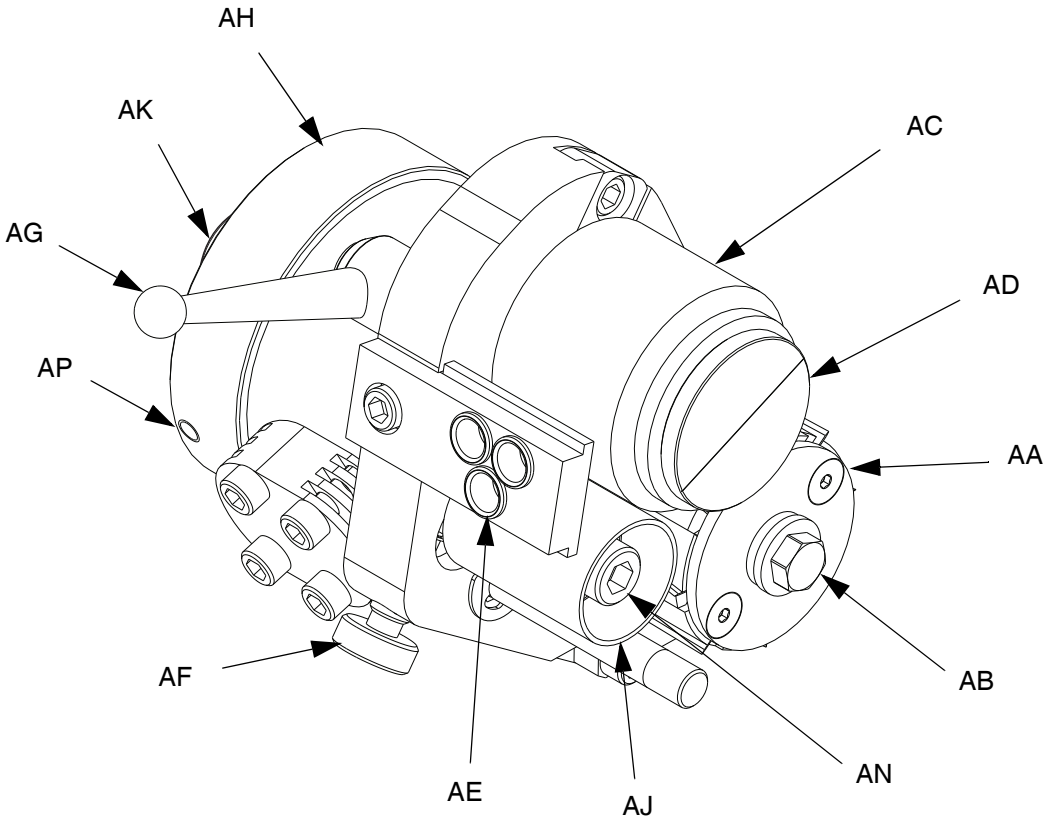


Key:

AA Blade Cartridge
AB Cutter Head Assembly Cap
AC Anvil
AD Anvil Cap
AE Glass Feed
AF Anvil to Blade Tension Adjustment Knob
AG Anvil to Blade Tension Lockdown
AH Air Motor
AJ Idler Wheel
AK Motor Lock button
AL Cover (not shown)
AM Chute (not shown)
AN Idler Lock Down Screw

FIG. 1

Cutter, 24E512, External Mix Gun, Series D
Cutter, 24P681, Internal Mix Gun, Series B



Key:

AA Cutter Head
AB Cutter Head Clamp Screw
AC Anvil
AD Anvil Cap
AE Glass Feed
AF Anvil to Blade Tension Adjustment Knob
AG Anvil to Blade Tension Lockdown
AH Air Motor
AJ Idler Wheel
AK Motor Lock button
AL Cover (not shown)
AM Chute (not shown)
AN Idler Lock Down Screw
AP Air Motor Lock Down Screw

FIG. 2

Setup

1. Engage trigger lock.
2. **I**nstall cutter:
   a. If necessary, use a crescent wrench to adjust pivot (541) so that it is parallel to gun front end and the open end points to the front of the gun. See FIG. 3.

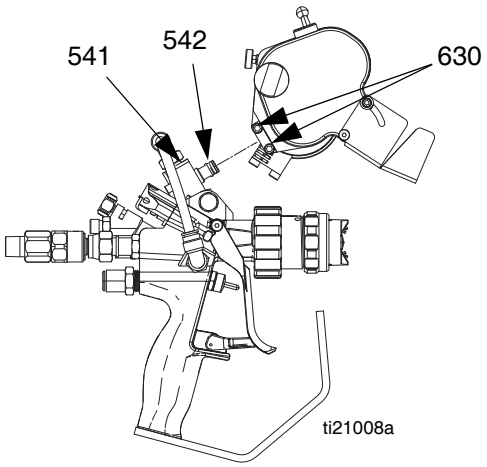


FIG. 3

   b. Back out screws (630). See FIG. 3.
   c. Install cutter onto pivot so glass feed holes are on top.

NOTE: Ensure proper engagement of o-ring (542) into the cutter assembly. Verify there is no excess air leakage because it will greatly reduce the performance of the air motor. See FIG. 3.

   d. Tighten screws (630) to lock cutter in place.
   e. Adjust cutter dispensing angle and chute angle as desired.
3. Insert glass strands into feed.
4. Adjust anvil to blade tension:
   a. Release lockdown (AG). See FIG. 1 on page 4.
   b. Adjust tension knob (AF) as desired.
   c. Tighten lockdown (AG).
   d. Release idler lock down screw (AN).
   e. Adjust idler wheel (AJ) until it touches anvil (AC).
   f. Tighten idler lock down screw (AN).
   g. Perform test spray to verify proper cutting of glass strands.
   h. Adjust tension as necessary.

Operation

Cutter Assembly

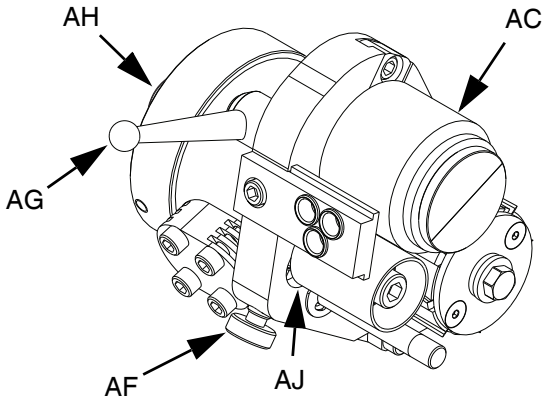


FIG. 4

RS guns with a cutter installed have two modes of operation. When the trigger is pulled halfway, material sprays but the cutter is not activated. When the trigger is pulled all the way, the air motor in the cutter is started and glass begins dispensing.

Premature Blade or Anvil Wear

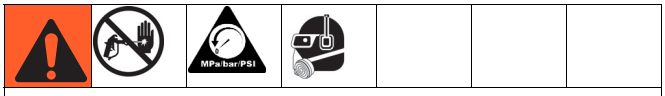
NOTICE

More tension between the anvil and blades leads to the anvil and blades wearing out faster. To prevent premature wear and to maximize anvil and blade life, use the minimum tension required to cut the glass and make small increases in tension when strands are not cut correctly. See **Adjust Anvil to Cutter Head Tension**, page 8.

The most common causes of premature anvil or blade wear are excessive tension between the anvil and blades, excessive cutter speed, and excessive tension between the idler wheel and anvil. See page 8 for the **Adjust Anvil to Cutter Head Tension** procedure.

To reduce the cutter speed while keeping the same glass output, perform the following procedure:

1. Do a bag check to establish a baseline for the current cutter output.
   a. Weigh a bag.
   b. Dispense glass into the bag for 15 or 30 seconds depending on the output.
   c. Weigh the bag to determine glass output. This is your fiberglass output baseline.
2. Add another strand of roving to the cutter inlet.
3. Engage trigger lock.



To prevent skin injection, engage the trigger lock before adjusting cutter motor.

4. With the trigger lock engaged, rotate the cutter motor (AH) clockwise to decrease speed. See FIG. 4. If necessary, rotate counter-clockwise to increase speed.
5. Do another bag check to determine the new glass output.
   a. Weigh a bag.
   a. Dispense glass into the bag for the same amount of time as in step 1b.
   b. Weigh the bag to determine glass output.
6. If the weight does not match the baseline bag weight, adjust the cutter speed then do another bag check. Repeat until the new bag weight matches the baseline bag weight.

Anvil and Blade Replacement

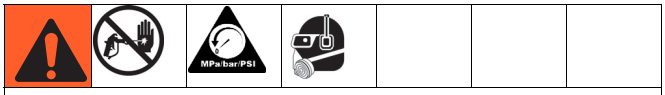
See **Replace Anvil** and **Replace Blades** procedures on pages 11 and 12.

Adjust Cutter Speed

When dispensing a material and glass mixture, the speed at which the cutter spins can be adjusted to ensure the correct ratio of glass to dispensed material.

NOTE: It may be possible to prevent premature anvil and blade wear by slowing the cutter speed and adding an additional strand of roving. See **Premature Blade or Anvil Wear** on page 7.

1. Determine whether more or less glass is needed.
   a. Place bag over cutter chute.
   b. Place bag over gun fluid outlet. Try to keep bag away from the dispense outlet to prevent piercing the bag which will lead to inaccurate dispense measurements.
   c. Dispense a 15-30 second shot.
   d. Weigh both bags and calculate ratio.
   e. Determine whether more or less glass is needed. Consult material manufacturer recommendations for ratio requirements.
   f. If ratio is ok, then no adjustment is needed. Otherwise, continue with adjustment procedure.
2. Engage trigger lock.



To prevent skin injection, engage the trigger lock before adjusting cutter motor.

3. With the trigger lock engaged, rotate the cutter motor (AH): clockwise to decrease speed, counter-clockwise to increase speed. See FIG. 4.
4. Go to step 1 to test ratio and repeat adjustment as necessary.
5. Tighten the air motor lock down screw to avoid speed changes during operation.

Adjust Anvil to Cutter Head Tension

NOTICE

More tension leads to the anvil and blades wearing out faster. To prevent premature wear and to maximize anvil and blade life, use the minimum tension required to cut the glass and make small increases in tension when strands are not cut correctly.

To cut the glass strands, the blades are pressed against the anvil. If the strands do not appear to be getting cut correctly an adjustment may be needed.

To adjust the tension:

1. Engage trigger lock.
2. Disengage the tension lockdown (AG) by pushing towards the front of the gun.
3. Turn the tension knob (AF) on the cutter: counter-clockwise to increase tension, clockwise to decrease tension. See FIG. 4.
4. Engage tension lockdown.

If there is still excessive anvil or blade wear after performing this procedure, see **Premature Blade or Anvil Wear** on page 7.

Adjust Anvil to Idler Tension

To adjust the anvil (AC) to idler (AJ) tension, the idler position can be adjusted. See FIG. 4 on page 7.

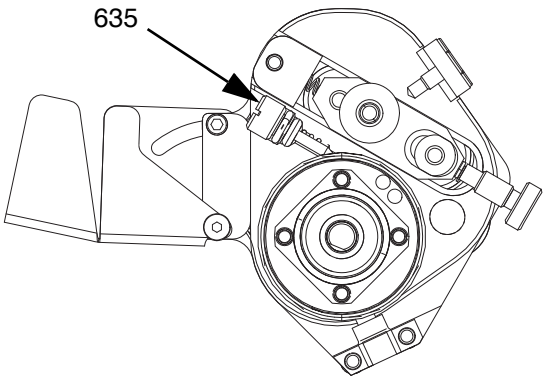
1. Follow **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.
3. Remove cover (627). See page 20.
4. Loosen idler lockdown screw (617) using 3/16 in. hex key.
5. Slide idler to desired position.
6. Tighten idler lockdown screw to lock idler in position.

Adjust Blower Air

NOTE: Blower air adjustment only applies to cutters shown in FIG. 1, page 4.

The cutter has blower air to help keep the anvil cool and to keep the inside of the cover free of debris. The blower air has been factory set to optimize performance of the cutter, however it can be adjusted.

Use a 3/32 hex allen key to turn adjusting screw (635) counter-clockwise to allow more air flow into the inside of the cover on the cutter assembly. This will affect air motor performance as less air will go to the air motor resulting in slower cutter speeds.



Adjust Cutter Air Pressure

Adjust the incoming air pressure according to the table below.

Number of Strands	US	Metric
One Strand	50-75 psi	3.4-5 bar, 0.3-0.5 MPa
Two Strands	80-125 psi	5.5-8.6 bar, 0.6-0.9 MPa
Three Strands	80-125 psi	5.5-8.6 bar, 0.6-0.9 MPa

Maintenance

Tools Required

The following tools are required to perform regular maintenance on the gun.

- 7/16 in. wrench
- 1/2 in. wrench
- 9/16 in. wrench
- 5/8 in. wrench
- 11/16 in. wrench
- 3/4 in. wrench
- 13/16 in. wrench
- 5/64 in. allen key
- 3/32 in. allen key (supplied)
- 9/64 in. allen key (supplied)
- 3/16 in. allen key (supplied with cutter assembly)
- 1/2 in. deep well socket
- 9/32 in. socket
- 7/32 in. deep well socket
- 5/16 in. nut drive (supplied)

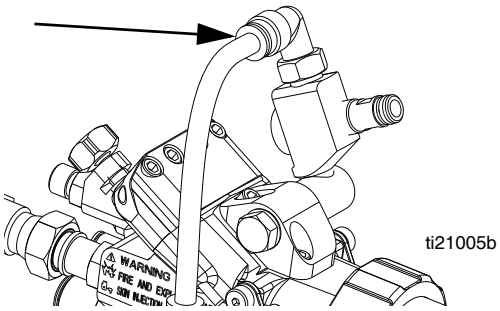
Task	Schedule
Add Oil to Air Motor, page 10	3-4 drops per 8 hours of use
Replace Anvil, page 11	When surface is badly scored or does not cut
Replace Cutter Head, page 12	When glass roving is no longer cut cleanly (verify proper tension first)

Air Motor Oiling

1. Perform **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.

Choppers with air fitting:

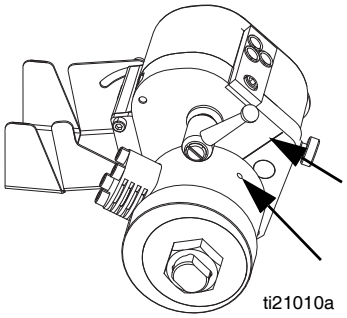
3. Remove the air line and add 3-4 drops of air motor oil, Graco part 202659, into air fitting port.



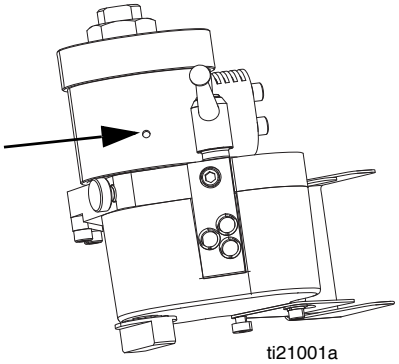
ti21005b

Choppers without air fitting:

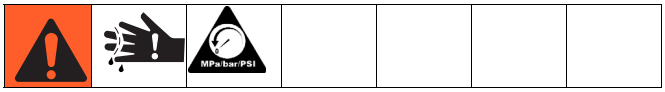
3. Rotate speed control until oil mark line is aligned with line on back plate of the cutter.


ti21010a

4. Add 3-4 drops of air motor oil, Graco part 202659, into oil hole on air motor


ti21001a

Replace Anvil



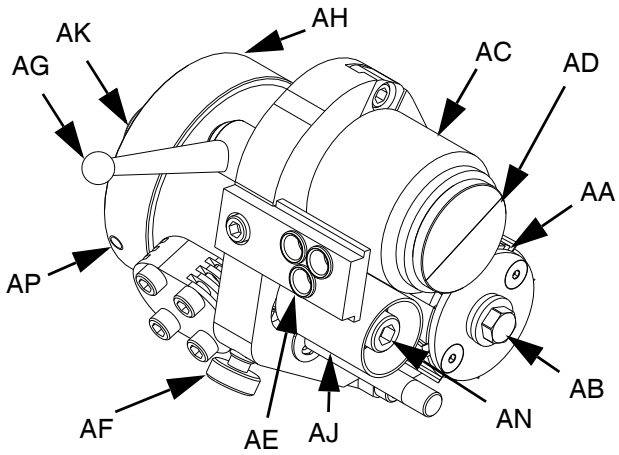
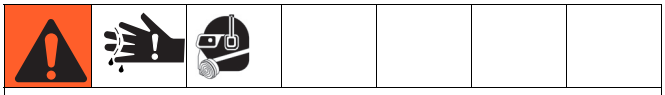


FIG. 5

For part references, see FIG. 5 on this page and cutter parts illustration on page 20.

1. Follow **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.
3. Loosen knob (628) then remove cover (627). See page 20.



Blades are sharp. Always wear protective gloves to prevent cuts when the cutter cover is removed.

4. Use hand to prevent anvil from spinning, then push in and rotate anvil cap (AD) 90 degrees counter-clockwise to remove.
5. Loosen the anvil to blade tension lockdown lever (AG).
6. Use the anvil to blade tension adjustment knob (AF) to relieve the tension between the anvil and blades.
7. Remove anvil (AC).
8. Install new anvil onto sleeve.
9. Install anvil cap.
10. Install cover and knob.

NOTICE

More tension between the anvil and blades leads to the anvil and blades wearing out faster. To prevent premature wear and to maximize anvil and blade life, use the minimum tension required to cut the glass and make small increases in tension when strands are not cut correctly.

11. **Adjust Anvil to Cutter Head Tension**, page 8.

Replace Blades

If glass is not getting cut properly, verify the tension is correct before replacing the blades.

1. Follow **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.
3. Remove cover (627). See page 20.

Blades are sharp. Always wear protective gloves to prevent cuts when the cutter cover is removed.

4. Press and hold lock button (AK) to prevent cutter head (AA) from spinning.
5. Loosen the cutter clamp screw and remove the cutter head clamp.
6. Replace blades.

NOTE: Ensure the blades are all seated on the angled face of the cutter head base.

7. Replace cutter head clamp with blades.
8. Tighten the cutter clamp screw.
9. Install cover and knob.

NOTICE

More tension between the anvil and blades leads to the anvil and blades wearing out faster. To prevent premature wear and to maximize anvil and blade life, use the minimum tension required to cut the glass and make small increases in tension when strands are not cut correctly.

10. **Adjust Anvil to Cutter Head Tension**, page 8.

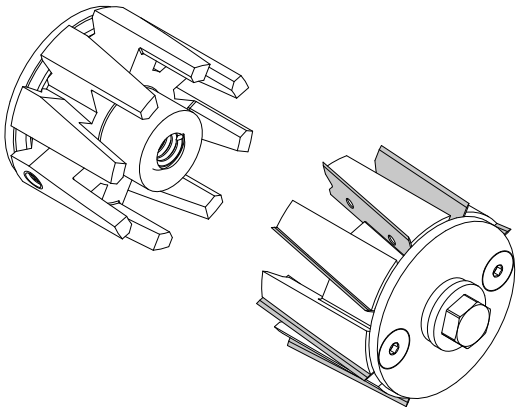
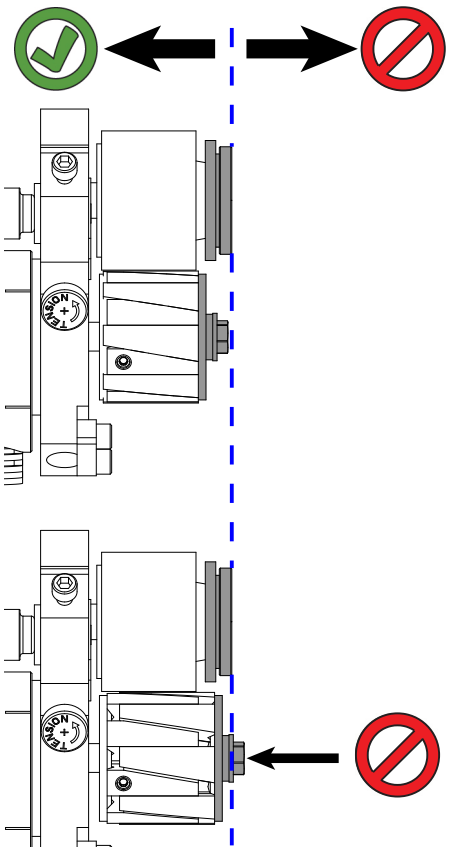


FIG. 6



NOTICE

The cutter head may be higher than the anvil quarter turn lock surface due to incorrect blade installation and may result in blade damage. Perform **Replace Blades** and verify all blade installations are correct.

FIG. 7

Replace Chopper Chute Liner

1. Follow **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.
3. Remove the cover.
4. Remove the cutter cover plate.
5. Replace the chute liner.
6. Installation is the reverse of removal.

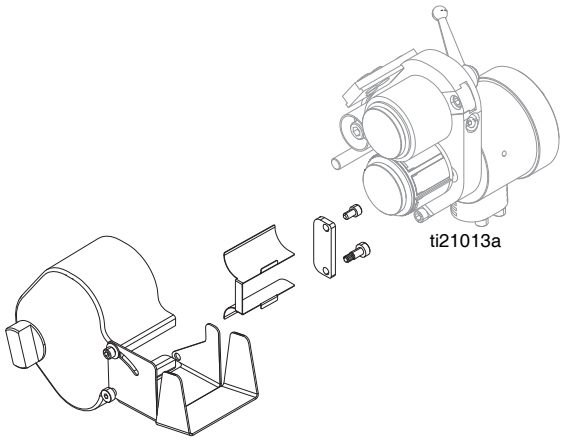


FIG. 8

Replace Muffler Filters (Kit 24H280)

1. Follow **Pressure Relief Procedure** found within the RS Gun and Cutter, Operation-Repair manual.
2. Engage trigger lock.
3. Remove the four screws holding the muffler cap on to the air motor.
4. Discard the old mufflers and replace.
5. Install the muffler cap and replace the four screws.

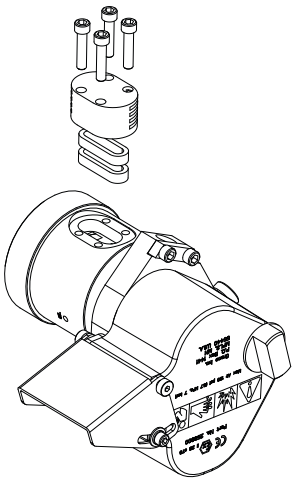


FIG. 9

NOTE: Failure to replace old mufflers will result in lower glass output. Running the chopper without mufflers will result in air motor damage and reduced life of anvil and blades. Running the chopper without mufflers will void the warranty of the chopper and air motor assemblies.

Troubleshooting

Problem	Cause	Solution
Premature anvil or blade wear	Excessive tension between anvil and cutter head	**Adjust Anvil to Cutter Head Tension**, page 8
	Cutter speed faster than necessary	**Premature Blade or Anvil Wear**, page 7
Roving binds up in Cutter	Obstruction in roving path	Ensure the roving path is free from obstruction
	Overspray/binder build up on internal components	Clean components and reinstall the cover
	Resin on roving	Clean as necessary, keep roving away from resin and overspray.
	Incorrect anvil to idler wheel tension	**Adjust Anvil to Idler Tension**, page 9
	Incorrect anvil to cutter blade assembly tension	**Adjust Anvil to Cutter Head Tension**, page 8
	Cutter blade assembly is worn out	Replace
	Anvil is worn out	Replace
Cutter does not actuate when the gun is triggered	Air supply to gun is shut off	Open air supply
	Speed control in off position	**Adjust Cutter Speed**, page 8
	Quick release plunger stuck in	Inspect, clean and lubricate, replace if necessary
	Incorrect anvil to idler wheel tension	**Adjust Anvil to Idler Tension**, page 9
	Incorrect anvil to cutter blade assembly tension	**Adjust Anvil to Cutter Head Tension**, page 8
	Cutter air valve stuck	Inspect and replace if necessary
	Air motor is “locked up”	Add oil to air motor, page 10
		Check for free rotation, replace if necessary
Cutter is cutting long strands	Anvil to cutter blade tension is incorrect	**Adjust Anvil to Cutter Head Tension**, page 8
	Anvil to blade tension lockdown is loose	Tighten the anvil to blade tension lockdown
	Anvil is worn out	**Replace Anvil**, page 11
	Cutter blade assembly is worn out	**Replace Blades**, page 12
Air motor spins but doesn't cut glass	Cutter head set screws (606) loose.	Apply medium strength thread sealant and tighten
	Anvil to cutter blade tension is incorrect	**Adjust Anvil to Cutter Head Tension**, page 8
Air motor speed incorrect	Incoming air supply issues	Ensure proper air supply to gun, see **Technical Data**, page 27
	Supply air volume too low	Ensure adequate air volume, see **Technical Data**, page 27
	Air motor speed control set incorrectly	**Adjust Cutter Speed**, page 8
	Anvil to cutter blade tension is too high	**Adjust Anvil to Cutter Head Tension**, page 8
	Air blowing out oil hole	Air motor installed incorrectly, page 17
	Cutter blade assembly is worn out	**Replace Blades**, page 12
	Air motor exhaust filter plugged	Clean and replace as necessary, page ###

Repair

Air Motor Component Removal

Refer to FIG. 10 for the following steps.

1. Loosen the set screws and pull gently to remove the cutter head assembly.
2. Remove the four screws that secure the air motor to the plate.
3. Separate the air motor from the plate.

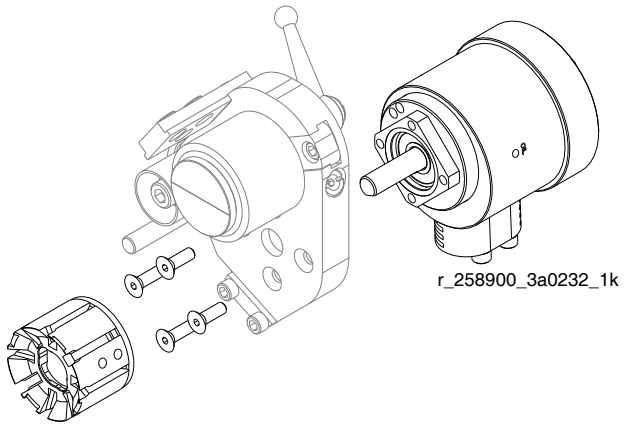


FIG. 10

Refer to FIG. 11 for the following steps.

4. Clamp the air motor flats into a vise.
5. Unscrew the nut bearing cap.
6. Pull upwards to remove the muffler housing.

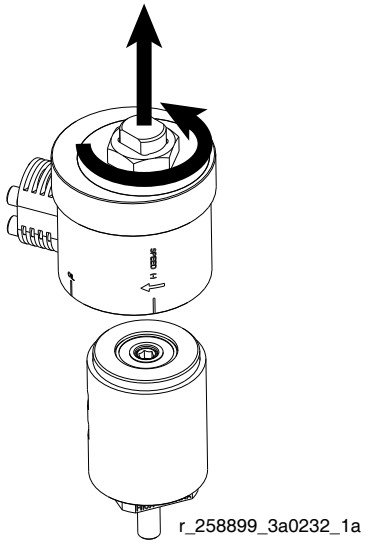
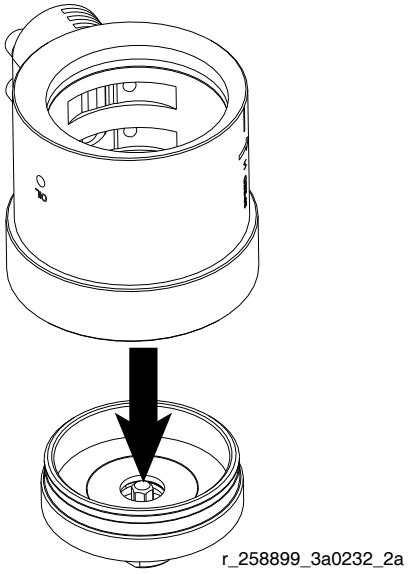


FIG. 11

7. Use an arbor press to remove the nut bearing cap from the muffler housing.



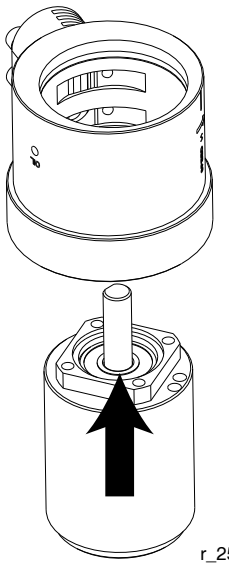
8. Replace damaged parts as required.

Air Motor Component Installation

1. Lubricate o-rings and install the air motor into the muffler housing.

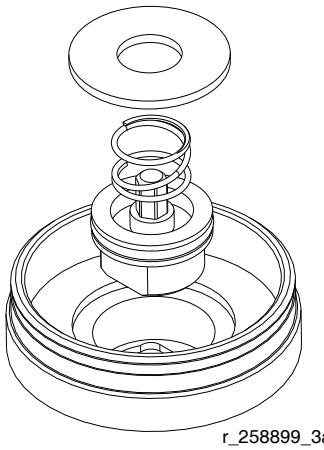
NOTICE

To avoid damage to the o-rings caused by the threads of the air motor, insert the air motor as shown below.



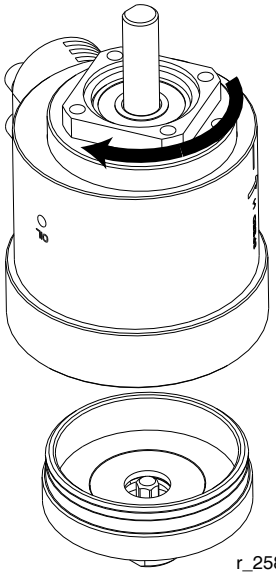
r_258899_3a0232_6k

2. Orient the nut bearing cap upside down and install the plunger with o-ring, spring, and washer.



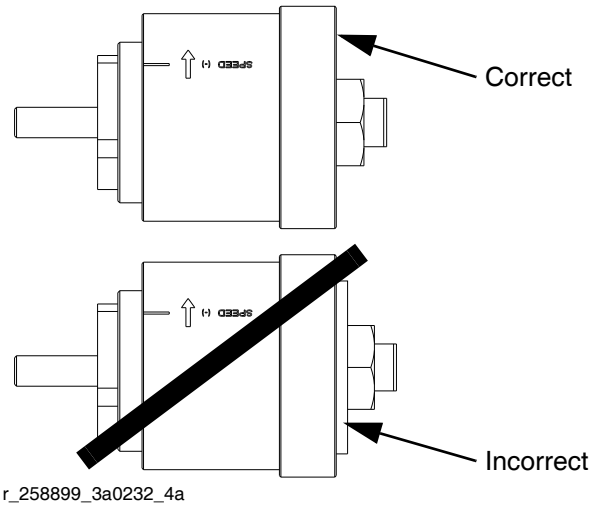
r_258899_3a0232_3a

3. Screw the air motor assembly on the nut bearing cap. Torque to 120-140 in-lb (14-16 N•m).



r_258899_3a0232_5k

4. Use an arbor press to push the muffler housing down until it is flush with the bearing cap.



r_258899_3a0232_4a

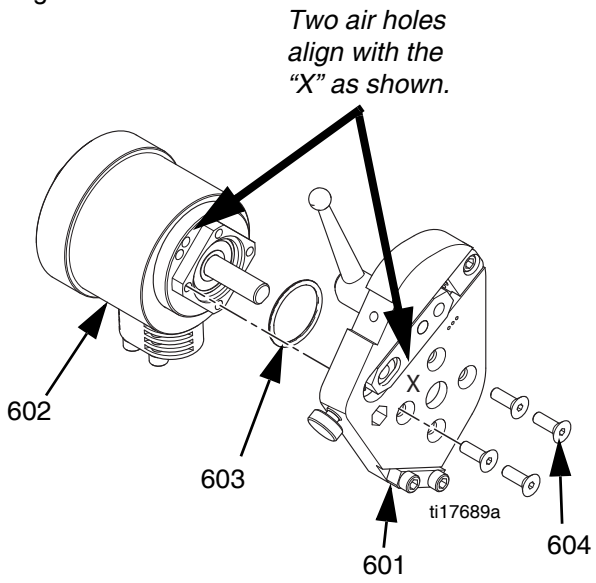
5. Perform **Air Motor Replacement**, page 17, to complete the installation.

Air Motor Replacement

1. Verify o-ring (603) is installed between the back plate (601) and the air motor (602).

NOTICE
The air motor will not function properly if the air motor is installed incorrectly. In the following step, ensure the air motor is installed as described.

2. With the air motor and back plate oriented as shown below, use four screws (604) to secure them together.

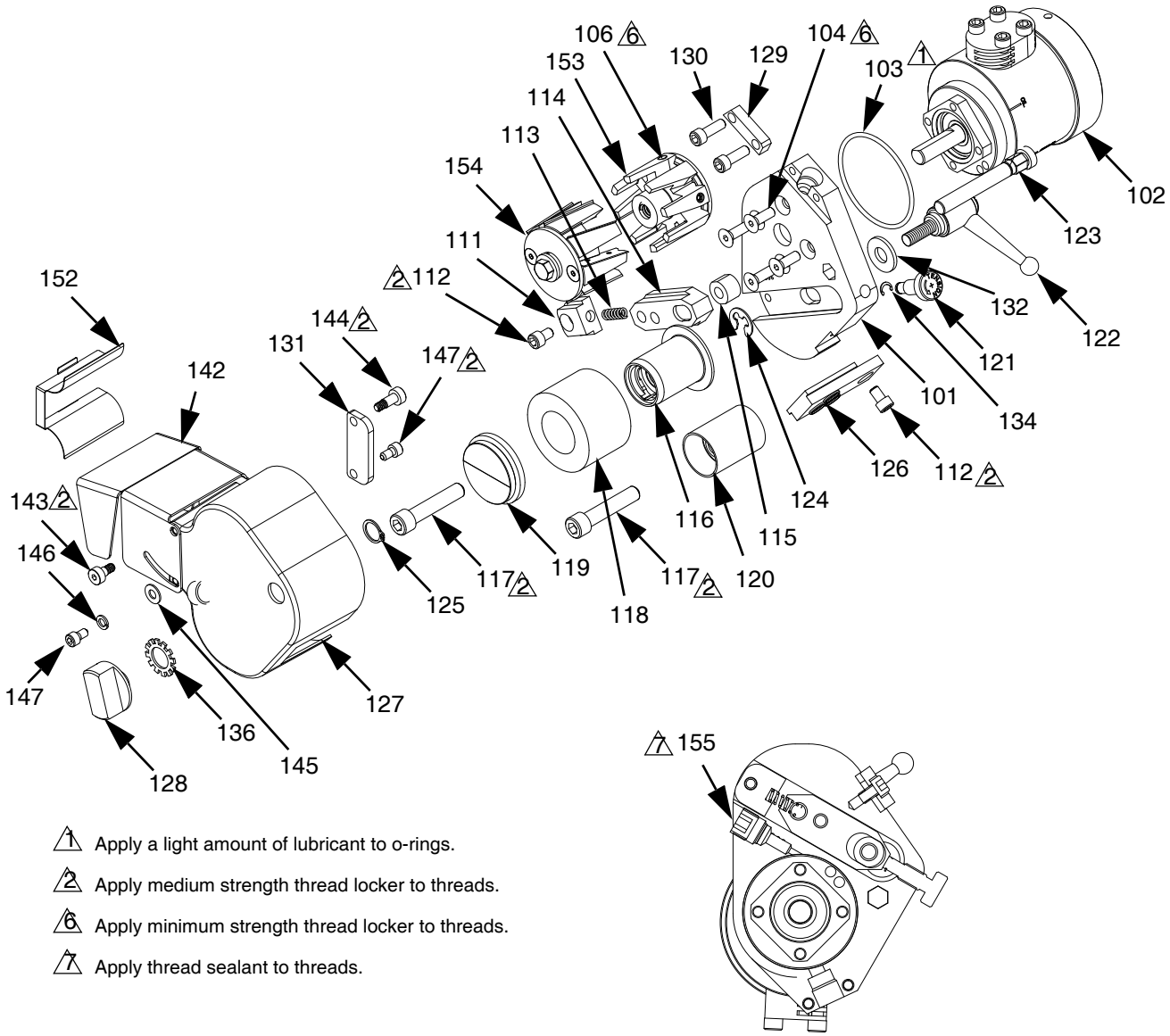


Parts

Cutter Assembly, 24E512-External Mix, 24P681-Internal Mix with Cutter Heads

NOTICE

To prevent undesired operation, do not disassemble any part of the air motor (602) except for the air motor muffler as shown below.



1 Apply a light amount of lubricant to o-rings.

2 Apply medium strength thread locker to threads.

6 Apply minimum strength thread locker to threads.

7 Apply thread sealant to threads.

Ref	Part	Description	Qty
100	199359	DOCUMENT, declaration	1
101	16C677	PLATE, cutter back	1
102	24E511	MOTOR, air	1
103	117519	O-RING	1
104	111945	SCREW, cap, flat head	4
106	124612	SCREW, set, #8-32x1/2 long, SST	2
111	16C686	PLATE, spring retainer	1
112	123909	SCREW, cap, socket head, 8-32x.250lg, sst	2
113	123882	SPRING, slide, anvil	1
114	16C678	PLATE, slider mounting	1
115	16C679	NUT, idler mounting	1
116❄	258902	SLEEVE, anvil, assembly	1
117❄★	124588	SCREW, cap, socket head, 1/4-20x1.25lg, SST	2
118	126995	WHEEL, anvil, cutter	1
119❄	24R341	CAP, anvil sleeve	1
120★	258901	BEARING, idler assembly	1
121	16C687	SCREW, spring tension	1
122	124048	HANDLE, clamp, cutter	1
123	16C691	TUBE, blower	1
124	123883	RING, retaining, e-ring	1
125◆‡	124316	RING, snap	1
126	24F038	BAR, feed, cutter	1
	24M569	OPTIONAL - BAR, feed, cutter, 2 hole	1
127◆‡	24N712	COVER, cutter, machined	1
128◆‡	16C697	KNOB, cover release	1
129	16C676	CLAMP, air pivot	1
130	124057	SCREW, cap, socket head, 8-32x0.5lg, SST	2
131◆‡	16D534	PLATE, cutter cover	1
132	110755	WASHER, plain	1
134	24E432	RING, retaining, e-ring (pack of 6)	1
136◆‡	100639	WASHER, lock	1
142	16K759◆	DEFLECTOR, chute, open, RS, external mix	1
	16K762‡	DEFLECTOR, chute, open, RS, internal mix	1
143◆‡	124345	SCREW, shoulder, 6-32x0.125 long	1
144◆‡	124346	SCREW, shoulder 6-32x0.25 long	1
145◆‡	154570	WASHER, flat	1
146◆‡	100068	WASHER, lock, spring	1
147◆‡	124781	SCREW, cap, socket head, 6-32x.25lg, SST	2
152◆‡	16P833	LINER, RS gun chopper	1
153❖	24R480	HEAD, base, cutter assembly	1
154❖	24R481	HEAD, clamp, cutter assembly	1
155	110208	PLUG, pipe, headless	1

❄ *Parts included in anvil sleeve kit 24S001.*

★ *Parts included in idler assembly kit 24H273.*

◆ *Parts included in cutter cover kit 24H282.*

‡ *Parts included in cutter cover kit 24P683.*

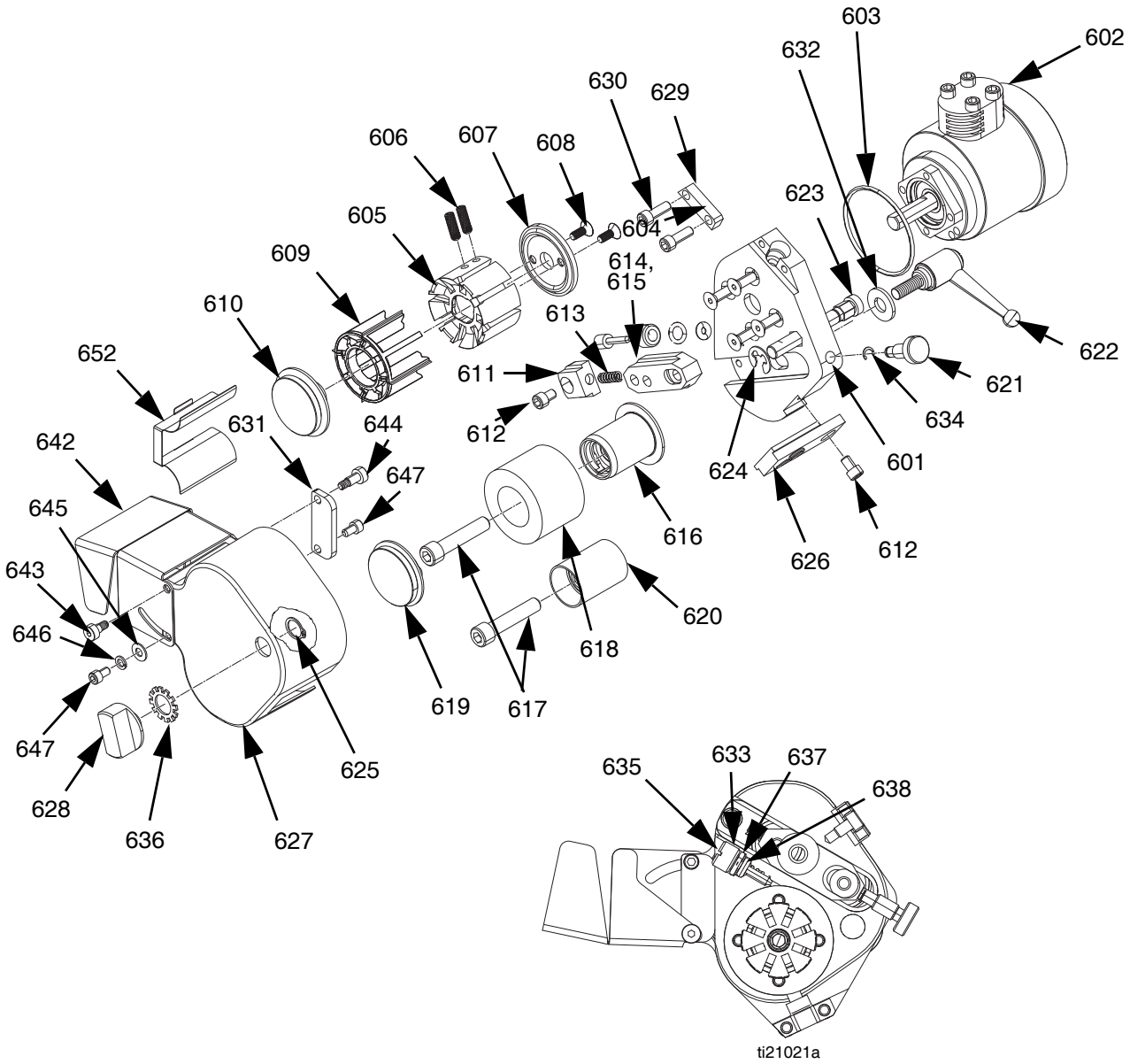
❖ *Parts included in cutter head kit 24R482.*

Cutter Assembly, 24E512-External Mix, 24P681-Internal Mix with Blade Cartridges

NOTE: Series A cutter assemblies are no longer available for purchase and are shown for reference only and spare parts ordering.

NOTICE

To prevent undesired operation, do not disassemble any part of the air motor (602) except for the air motor muffler as shown below.



ti21021a

NOTE: Ref. 635 is the blower air adjustment screw.

Ref	Part	Description	Qty
600	199359	DOCUMENT, declaration	1
601	16C677	PLATE, cutter back	1
602	24E511	MOTOR, air	1
603	117519	O-RING	1
604	111945	SCREW, cap, flat head	4
605✿	16C995	HEAD, cutter	1
606✿	124612	SCREW, set	2
607✿	16C996	CAP, front, cutter	1
608✿	123910	SCREW	2
609	24E448	CARTRIDGE, 4 blade (pack of 5)	1
	24F602	CARTRIDGE, 6 blade (pack of 5)	1
	24E449	CARTRIDGE, 8 blade (pack of 5)	1
610✿	258905	CAP, cutter head assembly	1
611	16C686	PLATE, spring retainer	1
612	123909	SCREW, cap	2
613	123882	SPRING, slide, anvil	1
614	16C678	PLATE, slider mounting	1
615	16C679	NUT, idler mounting	1
616❄	258902	SLEEVE, anvil, assembly	1
617❄★	124588	SCREW, cap	2
618	123672	WHEEL, anvil, cutter	1
619❄	262711	CAP, anvil sleeve	1
620★	258901	BEARING, idler assembly	1
621	16C687	SCREW, spring tension	1
622	124048	HANDLE, clamp, cutter	1
623	16C691	TUBE, blower	1
624	123883	RING, retaining, e-ring	1
625◆‡	124316	RING, snap	1
626	24F038	BAR, feed, cutter, 3 hole	1
	24M569	OPTIONAL - BAR, feed, cutter, 2 hole	1
627◆‡	24N712	COVER, cutter	1
628◆‡	16C697	KNOB, cover release	1
629	16C676	CLAMP, air pivot	1
630	124057	SCREW, cap	2
631◆‡	16D534	PLATE, cutter cover	1
632	110755	WASHER, plain	1
633	16E024	NUT, block	1
634	24E432	RING, retaining, e-ring (pack of 6)	1
635	16E010	SCREW, blower air adjustment	1
636◆‡	100639	WASHER, lock	1
637	104893	PACKING, o ring	1
638	15G117	O-RING	1
642	16K759◆	DEFLECTOR, chute, open, RS, external mix	1
	16K762‡	DEFLECTOR, chute, open, RS, internal mix	1
643◆‡	124345	SCREW, shoulder	1
644◆‡	124346	SCREW, shoulder	1
645◆‡	154570	WASHER, flat	1
646◆‡	100068	WASHER, lock, spring	1
647◆‡	124781	SCREW, cap	2
652◆‡	16P833	LINER, RS gun chopper	1

✿ *Parts included in cutter head kit 24H271.*

❄ *Parts included in anvil sleeve kit 24L037.*

★ *Parts included in idler assembly kit 24H273.*

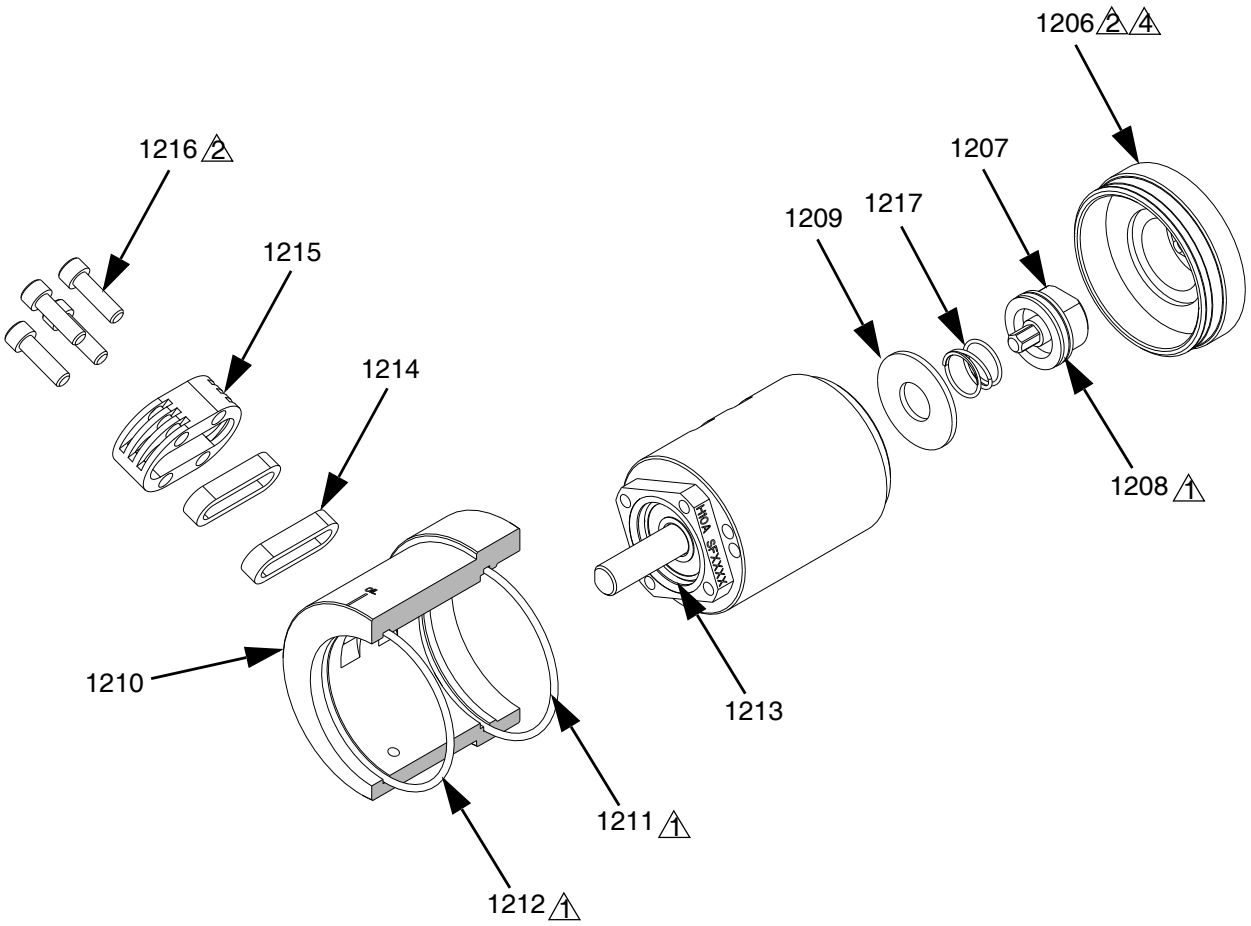
◆ *Parts included in cutter cover kit 24H282.*

‡ *Parts included in cutter cover kit 24P683.*

Air Motor, 24E511

NOTICE

Air motor cannot be serviced at any lower level than what is pictured here. If air motor issue cannot be corrected at this level, it must be replaced.



NOTE: Failure to replace old mufflers will result in lower glass output. Running the chopper without mufflers will result in air motor damage and reduced life of anvil and blades. Running the chopper without mufflers will void the warranty of the chopper and air motor assemblies.

1 Apply a light amount of lubricant 118665 to o-rings.

2 Apply thread locker to threads.

4 Torque to 120-140 in-lb. (14-16 N•m)

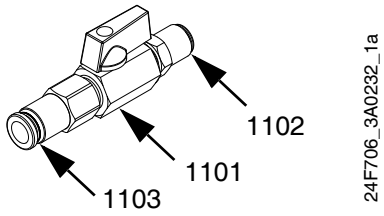
Ref	Part	Description	Qty
1206	16C443	NUT, bearing retaining	1
1207	16C438	PLUNGER, quick release	1
1208	116768	PACKING, o-ring	1
1209	16C436	SPACER, spring	1
1210	16C434	HOUSING, speed control	1
1211	113082	PACKING, o-ring	1
1212	117519	O-RING	1
1213❄	111603	PACKING, o-ring, ptfe	1
1214✿	124420	MUFFLER, air motor	3
1215	16D323	CAP, muffler, air motor	1
1216	127263	SCREW, cap, socket head, 8-32	4
1217	123742	SPRING, compression	1

✿ *Parts included in muffler felt kit 24H280.*

❄ *Parts included in six pack kit 24E459.*

Accessories

Chopper Air Shutoff, 24F706



Ref	Part	Description	Qty
1101	15B565	VALVE, ball	1
1102	123737	FITTING, tube, push connector	1
1103	16F710	CONNECTOR, 3/8 tube	1

External Mix Gel Gun to Chop Gun Conversion

To convert your external mix gel gun to a chop gun, purchase and install the following kits:

- External Mix Cutter Adapter Kit, 24E422
- Trigger Air Valve Kit, 24E425
- Cutter Assembly, 24E512

To complete the conversion from an external mix gel gun to a chop gun, remove catalyst restrictor (153) from gun.

Internal Mix Gel Gun to Chop Gun Conversion

To convert your internal mix gel gun to a chop gun, purchase and install the following kits:

- Internal Mix Cutter Adapter Kit, 24G832
- Trigger Air Valve Kit, 24E425
- Cutter Assembly, 24E512
- Blank Housing Assembly, 24M045

To complete the conversion from an internal mix gel gun to a chop gun, replace housing (216) from gun.

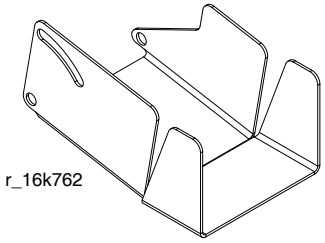
Oil for Air Motor

202659, 16 oz.

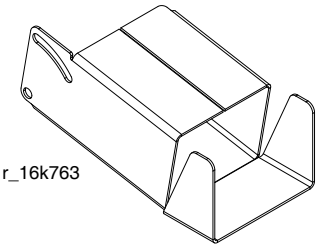
MSDS sheets available at www.graco.com.

Cutter Chop Chutes

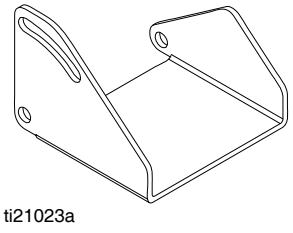
Additional chopper chutes for adapting to different glass pattern needs.



16K762 Shown



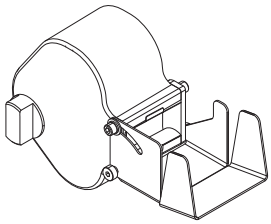
16K763 Shown



16K759 Shown

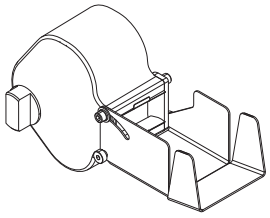
Part	Description	Qty
16K759	CHUTE, open, external mix, adjustable, 1.77x2.4 in. (45x61 mm)	1
16K760	CHUTE, closed, external mix, adjustable, 1.77x2.4 in. (45x61 mm)	1
16K762	CHUTE, open, internal mix, adjustable, 1.77x3.0 in. (45x76 mm)	1
16K763	CHUTE, closed, internal mix, adjustable, 1.77x3.0 in. (45x76 mm)	1
125883	CHUTE, closed, internal mix, 1 in. (25.4 mm) square exit	1
125884	CHUTE, closed, internal mix, 1.75x0.75 in. (44x19 mm) rectangular exit	1

Cover and Chutes



24H282 Shown

ti21024a



24P683 Shown

ti21025a

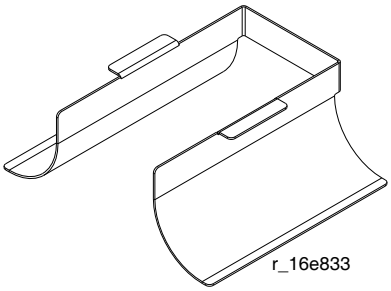
Part	Description	Qty
24H282	KIT, cutter cover, external mix	1
24P683	KIT, cutter cover, internal mix	1

Blade Cartridges

Pack of 5 cartridges

- 4 blade cartridge - 24E448
- 6 blade cartridge - 24F602
- 8 blade cartridge - 24E449

Cutter Chute Liner, 16P833



r_16e833

Tools

Hex Keys for Guns, 24F007

Includes:

- One 3/32 in. hex key
- One 9/64 in. hex key

Hex Keys for Cutter, 24F008

Includes:

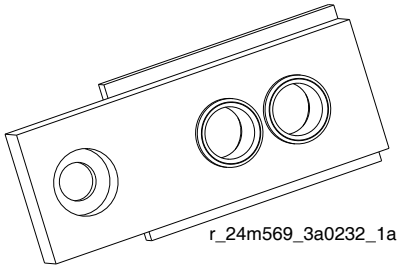
- One 3/32 in. hex key
- One 9/64 in. hex key
- One 3/16 in. hex key

Carbide Resin Seat, 24M833

Ideal for use with heavily filled materials. It is to replace standard resin seat 16C104.

Two Hole Feeder Bar, 24M569

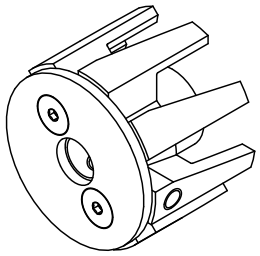
Ideal for use with only two strands of roving. It is to replace standard feeder bar 24F038.



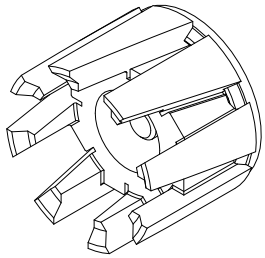
r_24m569_3a0232_1a

Cutter Head Kits

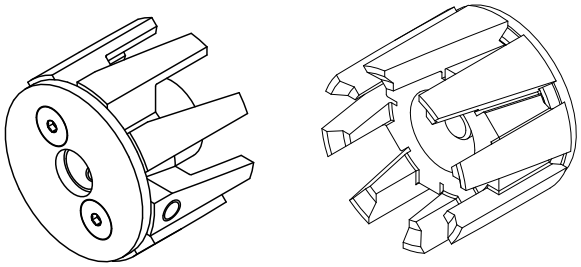
Cutter Base Assembly, 24R480



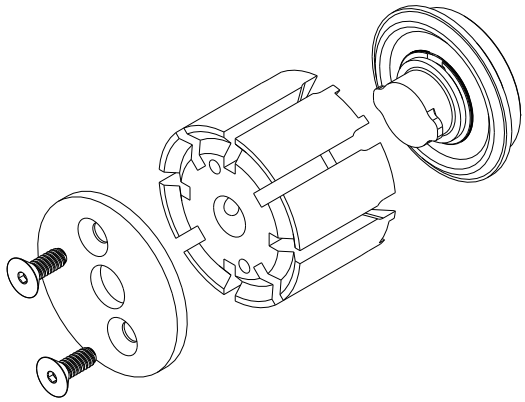
Clamp Cutter Assembly, 24R481



Cutter Head Assembly, 24R482



Cutter Head Assembly, 24H271



Blades, 24R606

Pack of 100 blades.

High Wear Wheel

420018 WHEEL, Anvil, Cutter (Optional replacement for 126995 only)

Technical Data

RS Cutter Assemblies		
	US	**Metric**
Air Inlet Working Pressure		
24E512	80-125 psi	5.5-8.6 bar, 0.55-0.86 MPa
24P681		
Minimum Air Flow (at 100 psi, 7 bar, 0.7 Mpa)		
24E512	16.5 scfm	0.47 m^3 per min.
24P681		
Cutter Maximum Glass Output At 100 psi (7 bar, 0.7 MPa) static air pressure@ the machine and 75 ft hose bundle		
One Strand	3.1 lb/min	1.4 kg/min
Two Strands	5.9 lb/min	2.7 kg/min
Three Strands	7.0 lb/min	3.2 kg/min
Cutter Maximum Glass Output At 100 psi (7 bar, 0.7 MPa) static air pressure@ the machine and 25 ft hose bundle		
One Strand	3.8 lb/min	1.7 kg/min
Two Strands	7.2 lb/min	3.3 kg/min
Three Strands	9.3 lb/min	4.2 kg/min
Weight		
24E512	2.00 lb	0.91 kg
24P681		
Sound Power Measured per ISO-3746		
24E512	111.5 dB(A) at 100 psig and maximum speed	
24P681		
Sound Pressure Measured at 3 ft (1 m) from equipment.		
24E512	93.7 dB(A) at 100 psig and maximum speed	
24P681		
Cutter Air Pressure		
One Strand	50-75 psi	3.4-5 bar, 0.3-0.5 MPa
Two Strands	80-125 psi	5.5-8.6 bar, 0.6-0.9 MPa
Three Strands	80-125 psi	5.5-8.6 bar, 0.6-0.9 MPa
Maximum Air Pressure	125 psi	8.6 bar, 0.9 MPa
Wetted Parts	Aluminum, stainless steel, carbon steel, carbide, chemically resistant o-rings	
Materials of Construction	Aluminum, stainless steel, carbon steel, carbide, chemically resistant o-rings	

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
The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

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: 1-800-746-1334 Fax: 330-966-3006

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 332574*

Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

www.graco.com
Revision F, February 2016