


LazerVacTM and Cyclone

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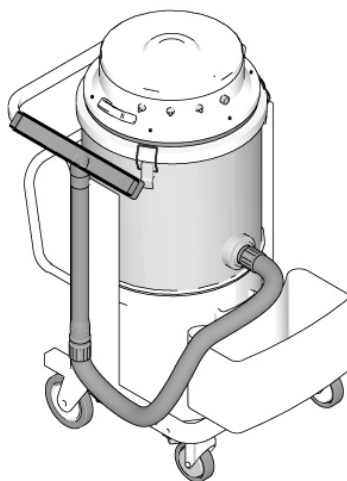
Vacuum for collection of dry concrete and asphalt dust. For professional use only.

Vacuums	Description	Approvals
25M858	LazerVac 230 (120V)	
25E237	LazerVac 330 (230V)	CE 
Separators		
25M861	Cyclone 20 (20 gallon)	
25M862	Cyclone 32 (32 gallon)	
25R090	Cyclone LP	

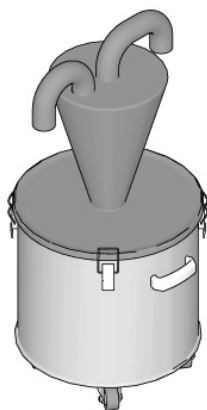


Important Safety Instructions

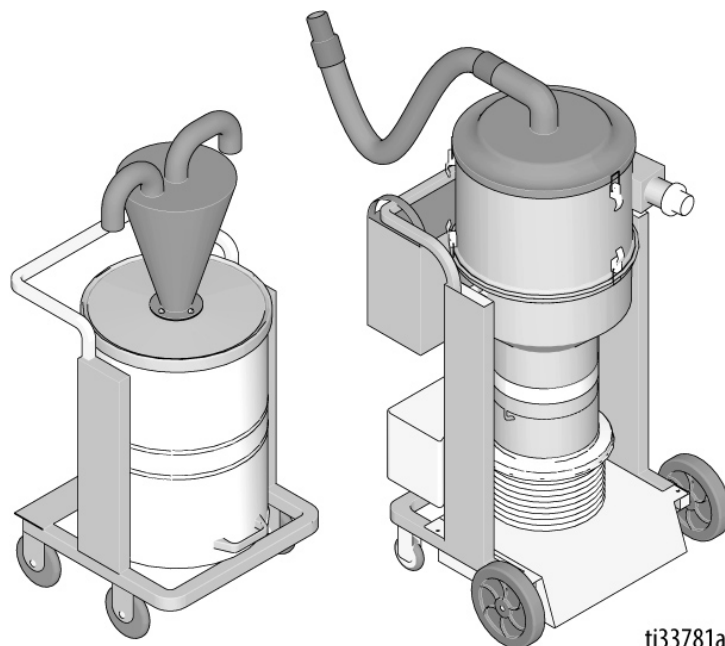
Read all warnings and instructions in this manual before using the equipment. Be familiar with the controls and the proper usage of the equipment. Save these instructions.



LazerVac



Cyclone 20 and 32



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Cyclone LP








PROVEN QUALITY. LEADING TECHNOLOGY.

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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>DUST HAZARD</p> <p>Grinding concrete and other surfaces can create dust that contains hazardous substances.</p> <p>To reduce the risk of serious injury:</p> <ul style="list-style-type: none"> • Control the dust to meet all applicable workplace regulations. • Wear a properly fit-tested and government approved respirator suitable for the dust conditions when emptying collection tank or performing maintenance. • Do not use without dust bag and filters in place.
 	<p>ELECTRIC SHOCK HAZARD</p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> • Turn off and disconnect power cord before servicing equipment. • Connect only to grounded electrical outlets. • Use only 3-wire extension cords. • Ensure ground prongs are intact on power and extension cords. • Do not expose to rain. Store indoors. • Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the equipment. Keep cord away from heat, sharp edges, or moving parts. • Do not use on wet surfaces.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, inhalation of dust or chemicals, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eye wear. • Hearing protection. • Properly fit-tested and government approved respirator suitable for the dust conditions.



WARNING

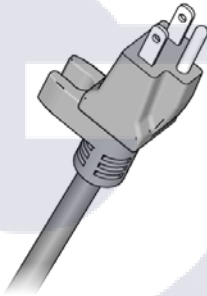


GROUNDING

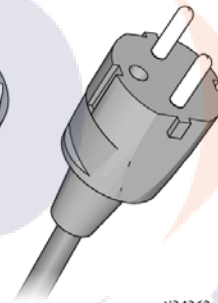
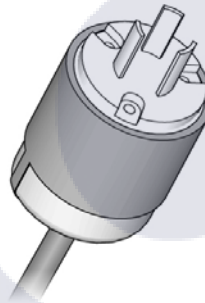
This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V or 230V circuit and has a grounding plug similar to the plugs illustrated in the figure below.

120V US



230V



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- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

Extension Cords:

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm²) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.



WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not leave the work area while equipment is energized. Turn off all equipment 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.
- Use equipment only for its intended purpose. Call your distributor for information.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.
- Maintain a safe operating distance from other people in the work area.



ENTANGLEMENT HAZARD

Rotating parts can cause serious injury.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Do not wear loose clothing, jewelry, or long hair while operating equipment.



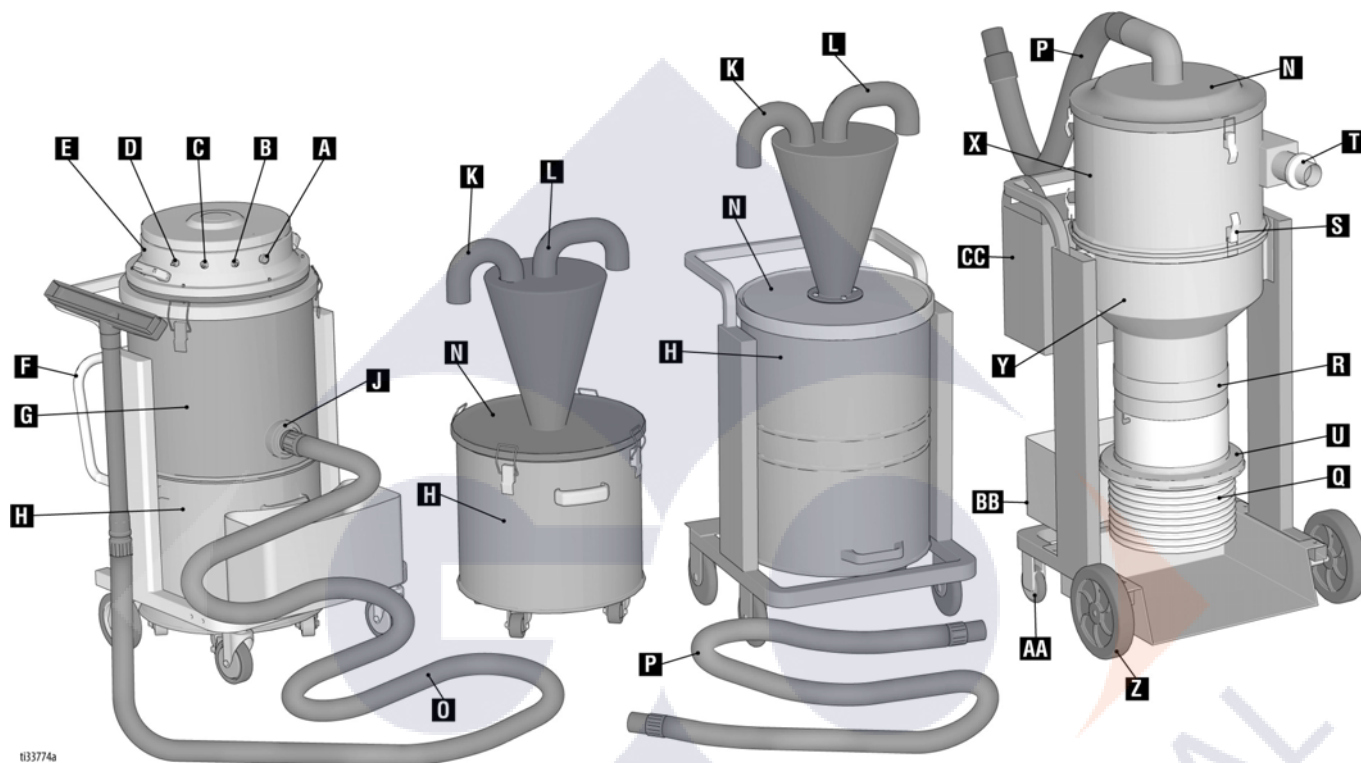
FIRE AND EXPLOSION HAZARD

Flammable fumes in work area can ignite or explode. To help prevent fire and explosion:

- Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.

Component Identification

LazerVac 230 and 330 Cyclone 20 Cyclone 32 Cyclone LP



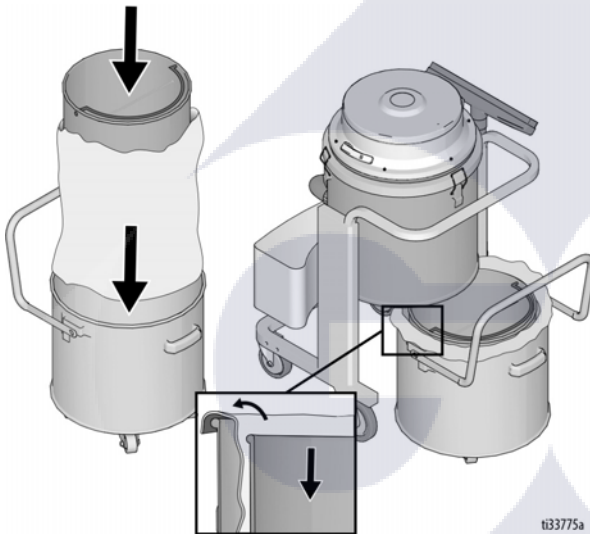
	Component
A	Auto Filter Cleaner Power Switch
B	Vacuum Motor Switch
C	Vacuum Motor Switch
D	Vacuum Motor Switch (LazerVac 330 only)
E	Motor Housing Assembly
F	Engagement Lever
G	Filter Housing and Body
H	Dust Collection Tank (Dust Bag Holder is inside tank, not shown)
J	Vacuum Hookup
K	Vacuum Inlet
L	Vacuum Outlet
N	Separator Lid
O	Long Hose (to connect the LazerVac or Cyclone to the GrindLazer)

	Component
P	Short Hose (to connect the LazerVac to the Cyclone)
Q	Vacuum Dust Collection Bag
R	Velcro® Belt (to secure Vacuum Dust Collection Bag)
S	Drum Latch
T	GrindLazer Hookup
U	Bag Adapter
X	Separator Mid Body
Y	Separator Lower Body
Z	10" Wheel
AA	4" Wheel
BB	Tool Box
CC	Tool Bag

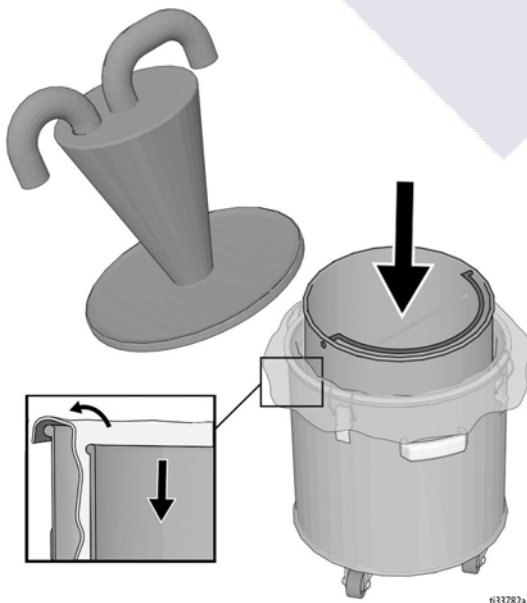
Setup

1. Insert dust collection bags into Dust Collection Tanks.

- a. Remove Dust Collection Tank by pulling up on the Engagement Lever and insert the collection bag into the tank. Wrap the bag around the lip of the tank and insert the Dust Bag Holder on top of the bag. Reinsert the tank into the bottom of the LazerVac. Lock the tank by pushing down on the Engagement Lever.



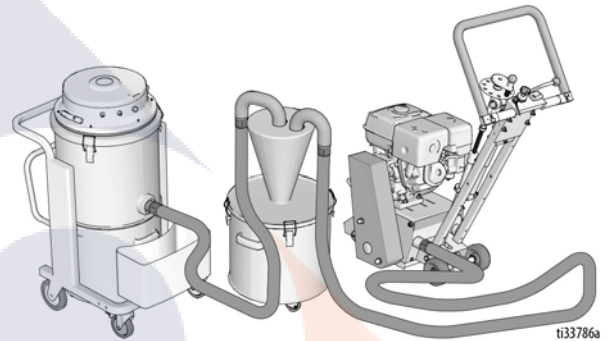
- b. If using a Cyclone separator, remove the Separator Lid and insert the collection bag into the tank. Insert the Dust Bag Holder on top of the bag. Wrap the bag around the lip of the tank and reinstall the Separator lid onto the tank.



2. Connect hoses.

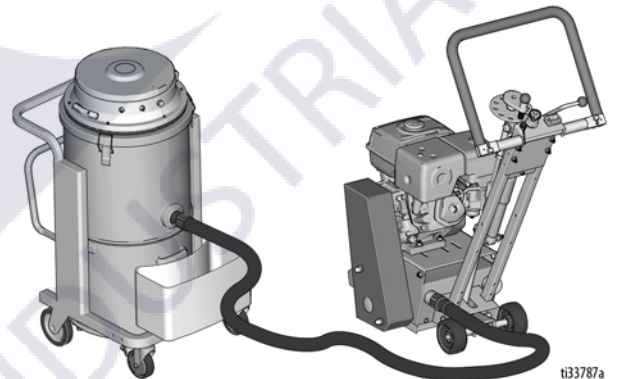
If using a Cyclone separator:

- Connect one end of the Short Vacuum Hose to the inlet of the LazerVac. Connect the other end of the short hose to the outlet of the Cyclone separator.
- Connect one end of the Long Vacuum Hose to the inlet of the Cyclone separator. Connect the other end of the long hose to the vacuum hookup on the GrindLazer.



If not using a Cyclone separator:

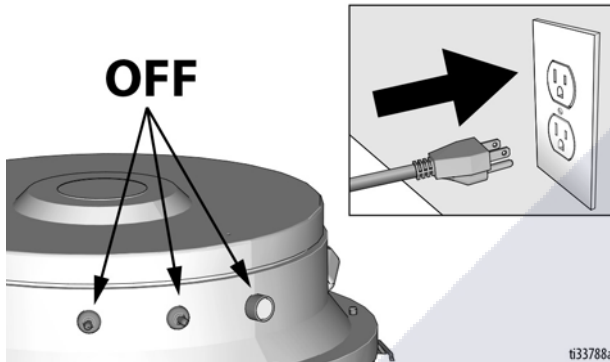
- Connect one end of the Long Vacuum Hose to the inlet of the LazerVac. Connect the other end of the long hose to the vacuum hookup on the GrindLazer.



NOTE: Use the Y-Connector (LazerVac 330 only) to connect 2 hoses to the vacuum or separator, if desired.

Operation

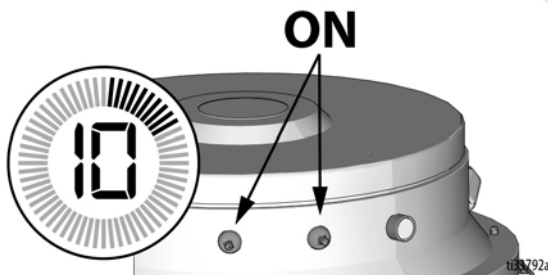
1. Ensure all LazerVac motor switches are turned to "OFF". Plug vacuum into grounded power source.



2. Turn Auto Filter Cleaner Power Switch to "ON". Ensure the sound of the Filter Cleaner Bar is heard contacting the inside of the filter. If no sound is heard, replace the Plastic Inserts on the cleaning bar. See page 18.



3. After 10 seconds, turn on a Vacuum Motor Switch. Turn on additional vacuum motors if more vacuum power is needed.



4. LazerVac is now ready for dust collection from the GrindLazer or other removal equipment.
5. Use the vacuum accessories shown in the section titled **Main Assembly Diagram (LazerVac)**, page 12 to pick up dust from the ground between grinding passes.

Emptying Collection Tanks and Bags

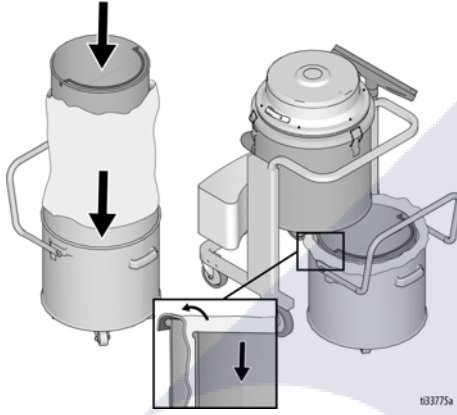
DUST HAZARD Grinding concrete and other surfaces can create dust that contains hazardous substances. To reduce the risk of serious injury: <ul style="list-style-type: none"> • Respirator must be worn when emptying or cleaning Dust Collection Tanks or bags. • Follow local ordinances and regulations for disposal. 				

LazerVac and Cyclone 20 and 32

1. When Dust Collection Tanks are full, turn off all vacuum motors and leave Auto Filter Cleaner power switch to "ON". After 2 minutes of cleaning the vacuum filters, turn off cleaning switch and unplug vacuum from power source.
2. Put on a respirator.
3. If LazerVac is full, remove Dust Collection Tank by pulling up on the Engagement Lever.
4. If Cyclone separator is full, remove the Separator Lid.
5. Remove the Dust Bag Holder from the tank.
6. Gather and secure the top of the collection bag. Lift and remove the collection bag, tie up and then dispose. Follow local ordinances and regulations for disposal.



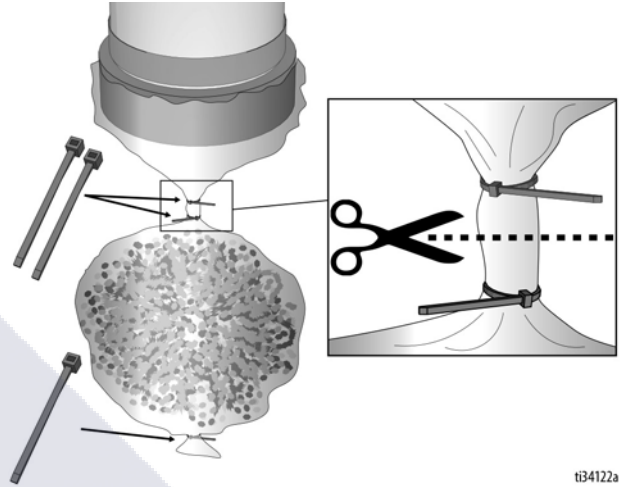
7. Insert new bags into the collection tanks and insert the Dust Bag Holder on top of the bag. Then reinsert the tanks into the Cyclone separator and into the bottom of the LazerVac. Ensure the Dust Collection Tank is securely attached to the body of the vacuum by pushing down on the Engagement Lever.



Cyclone LP

1. When Vacuum Collection Bag has collected approximately 45 lbs (20 kg) of dust, the bag should be replaced.
2. Pull down on the continuous bag to expose 6 - 12" (15 - 30 cm) of new, unused bag.
3. Use a cable tie to tie off the top of the bag. Fasten another cable tie 2" (5 cm) cable tie above the first cable tie.

4. Put on respirator. Cut the bag between the two cable ties.

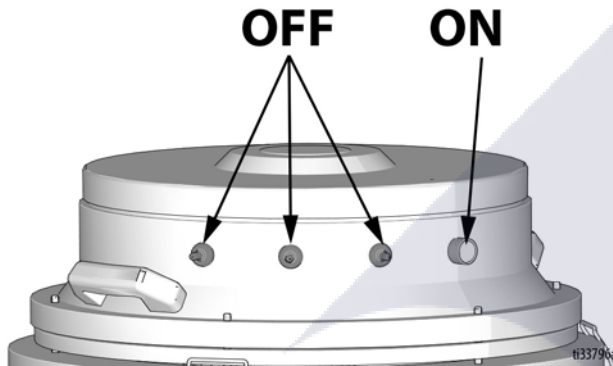


5. Dispose of the dust bag. Follow local ordinances and regulations for disposal.
6. Pull down on the new bag attached to the vacuum until the bottom of the bag rests on the bottom of the vacuum cart. Ensure the bottom of the bag is tied off firmly with the cable tie.

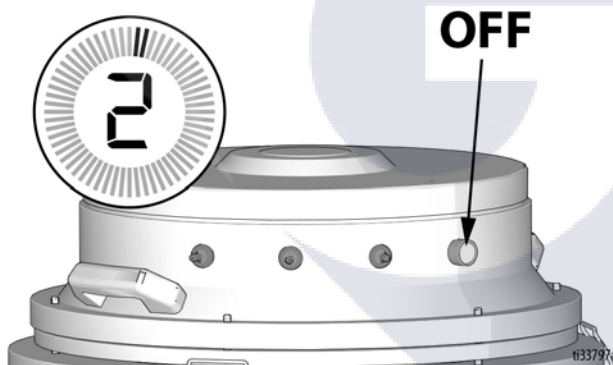
Shutdown and Storage

Shutdown

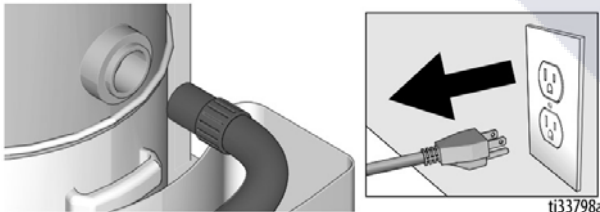
1. Turn off all vacuum motors and leave Auto Filter Cleaner Power Switch to ON.



2. Allow the Auto Filter Cleaner to run for 2 minutes, then turn to OFF.



3. Unplug LazerVac from power source and remove hoses from the vacuum.







Storage

Disconnect power cord before storing. Store indoors.

NOTICE

Do not store in a location with high temperatures or excessive humidity, in order to prevent damage to your LazerVac components.

Maintenance

				
DUST AND SHOCK HAZARD To reduce the risk of serious injury: <ul style="list-style-type: none"> • Respirator must be worn during all maintenance. • Follow local ordinances and regulations for disposal of dust. • Unplug vacuum from power source before maintenance. 				

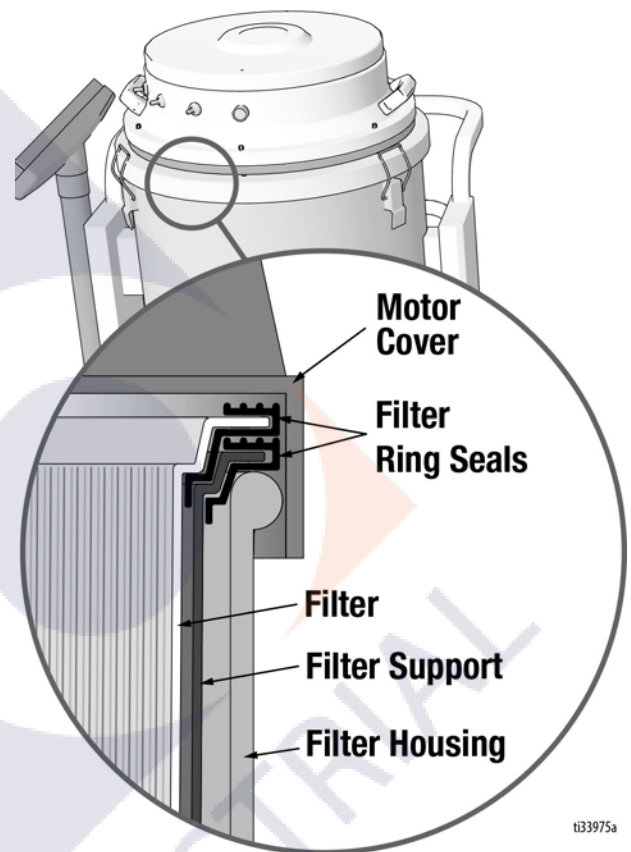
The following steps should be performed to maintain proper operation and sustain the life of the LazerVac.

Daily

- Prior to use, inspect all hoses for holes. Repair or replace damaged hoses.
- To help maintain performance and dust control, replace filters when:
 - Vacuum filters have tears or are clogged.
 - Airborne dust is visible when using the LazerVac.

Weekly

- Inspect Filter Ring Seal for damage. If damaged, replace seal. Ensure seals are installed correctly and properly sealed.



- Inspect Filter Cleaner Plastic Inserts for wear or damage. Replace the inserts regularly to help maintain performance and dust control.

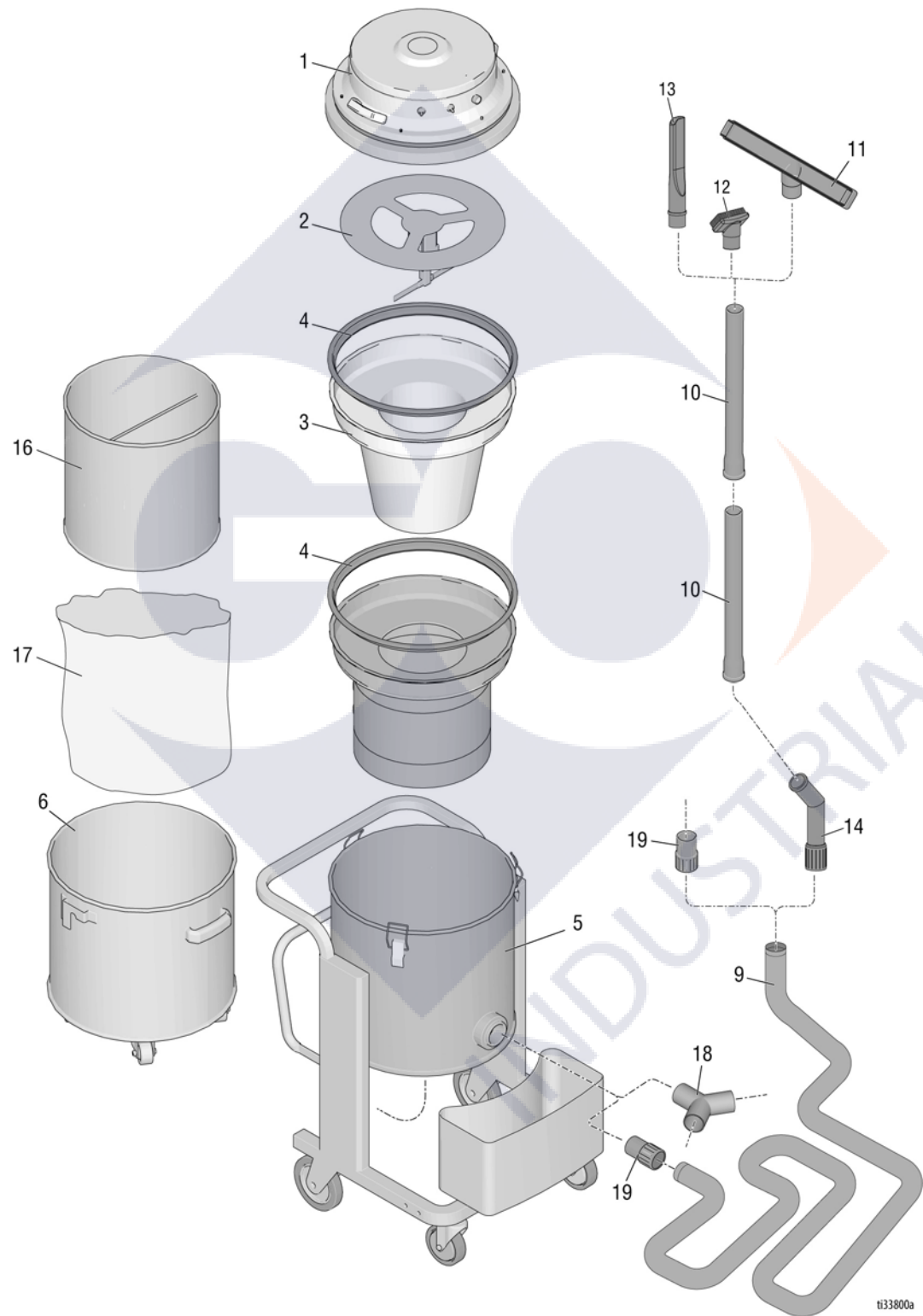
Recycling and Disposal

End of Product Life

At the end of a product's useful life, recycle it in a responsible manner.

Parts

Main Assembly Diagram (LazerVac)



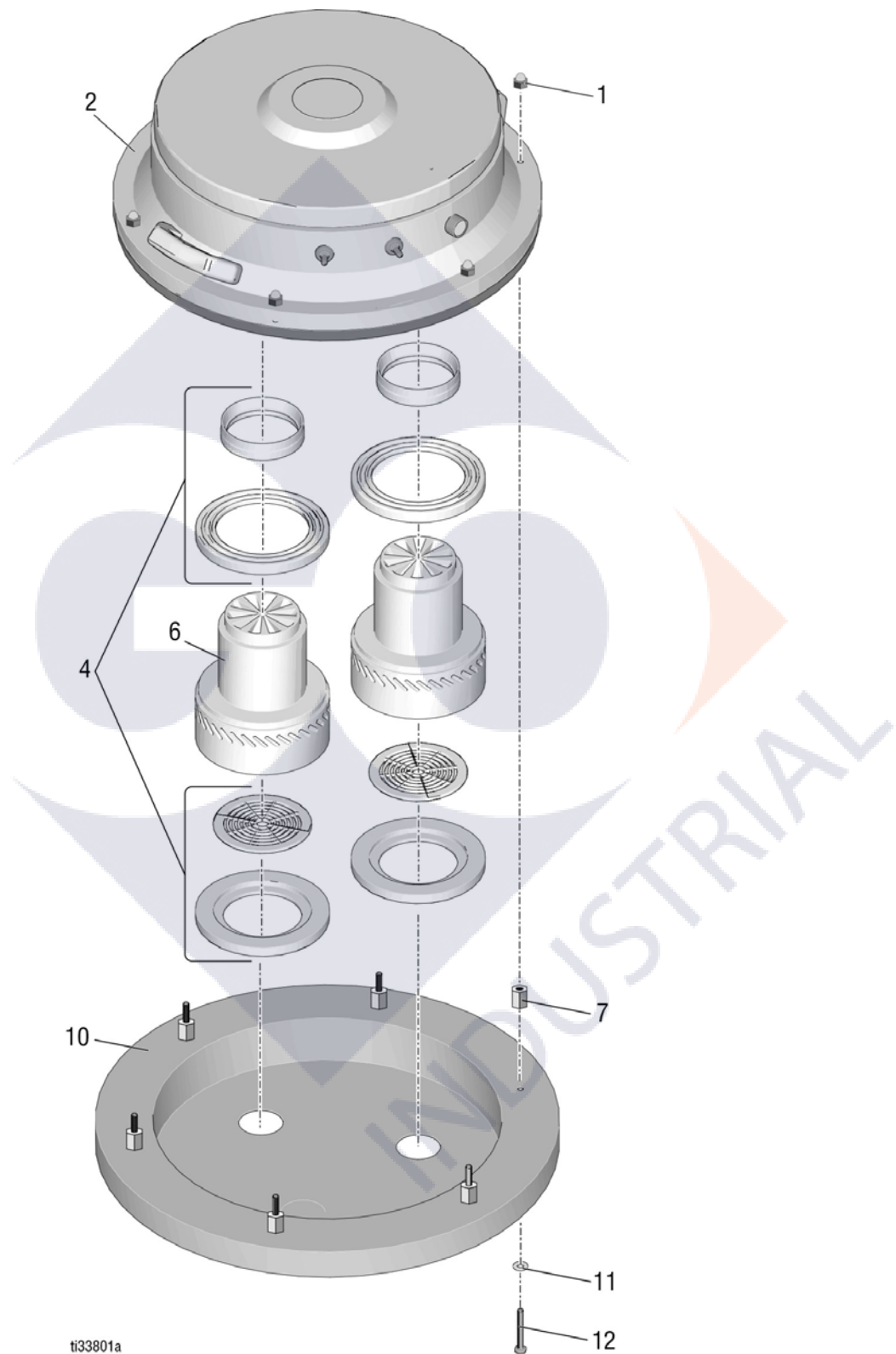
Main LazerVac Assembly Parts (LazerVac)

Ref	Part Number	Description	Qty
1	See page 14-16	Motor Housing Assembly	1
2	See page 18	Auto Filter Cleaner Assembly	1
3	17X185	Filter (includes item 4)	1
4	17X197	Filter Seal Ring	2
5	17X187	Main Frame	1
6	17X188	Dust Collection Tank	1
9*	17X156	Long Vacuum Hose, Standard, 2" (includes item 19)	1
10	17X158	Vacuum Extension (set of 2)	1
11	17X162	Vacuum Large Brush	1
12	17X161	Vacuum Small Brush	1
13	17X160	Vacuum Floor Nozzle	1
14	17X159	Vacuum Elbow	1
15▲ (not shown)	17X522	Warning Label (English, French, Spanish)	1
	17X523	Warning Label (English, Chinese, Korean)	1
	17X524	Warning Label (Icons)	1
16	17X696	Dust Bag Holder	1
17	17X695	Dust Bag (set of 20)	1
18	17X163	Y-Connector (LazerVac 330 only)	1
19	17X164	2" Hose Connector	2

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

* 2" Heavy Duty, High Temperature Hose available: P/N 17X704

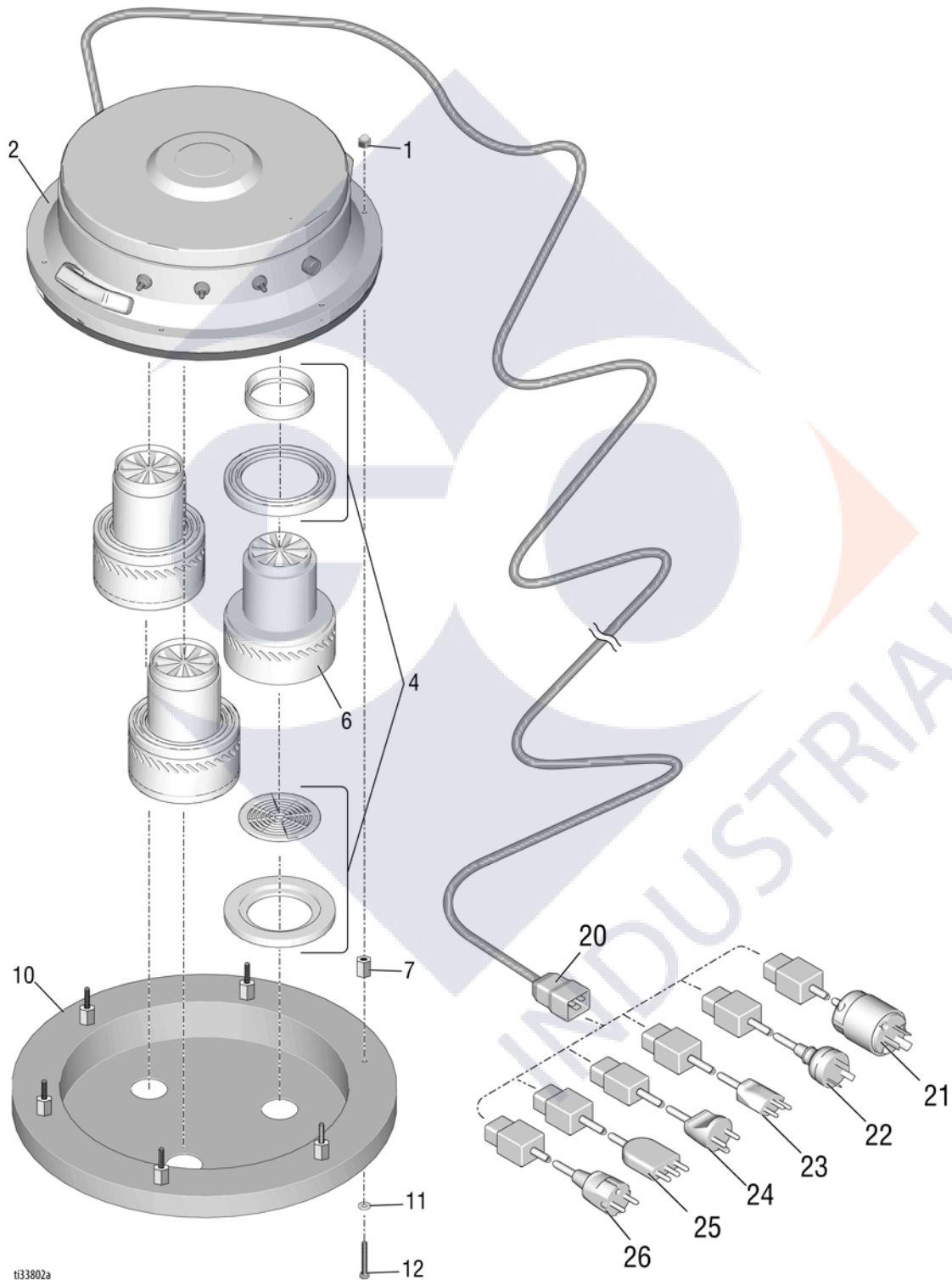
Motor Housing Assembly Diagram (LazerVac 230)



Motor Housing Assembly Parts List (LazerVac 230)

	Part Number	Description	Qty
1	17X168	Acorn Nut	6
2	17X382	Motor Housing Cover (includes power cord)	1
3	17X170	Hex Spacer, Long (not shown, located inside item 2)	6
4	17W092	Set of Motor Rubber Rings and Plastic Net	2
6	17X381	Motor, 120V	2
7	17X174	Hex Spacer, Short	6
10	17W102	Motor Table	1
11	17X178	Flat Washer	6
12	17X179	Hex Head Cap Screw	6

Motor Housing Assembly Diagram (LazerVac 330)

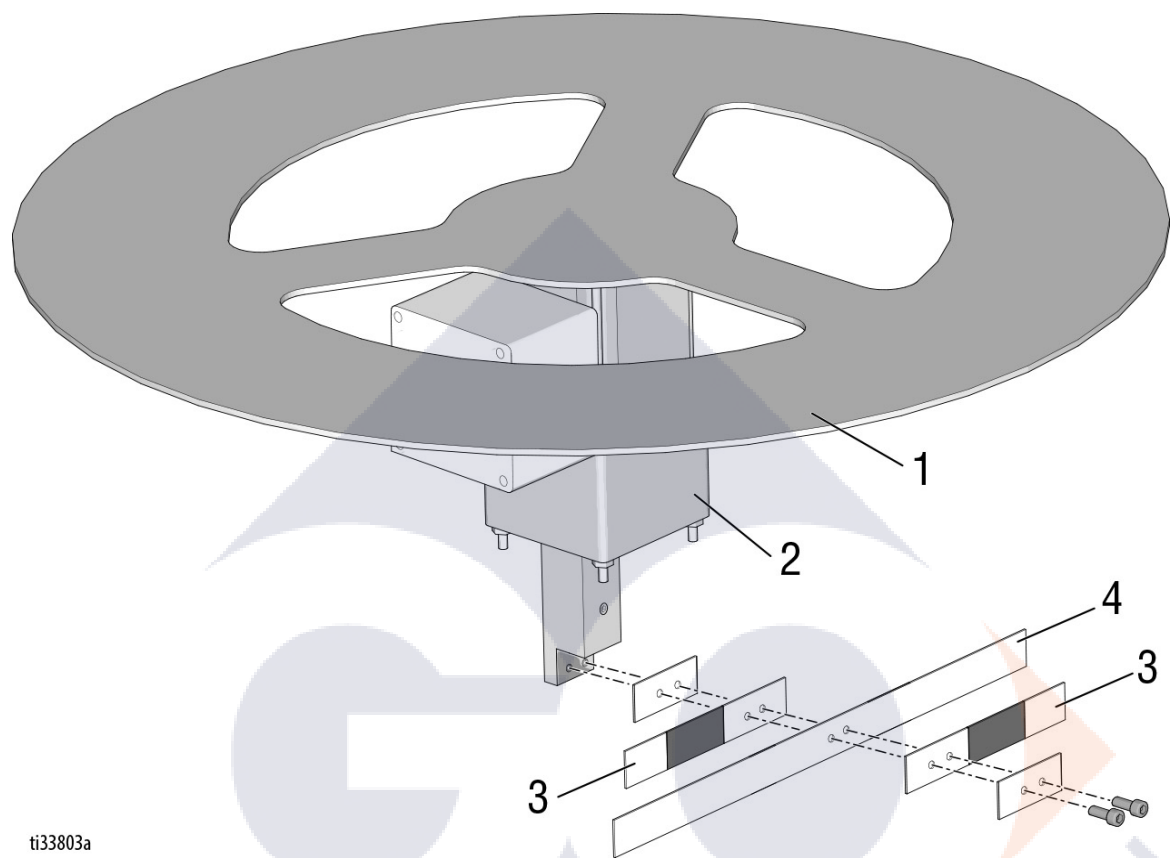


Motor Housing Assembly Parts List (LazerVac 330)

	Part Number	Description	Qty
1	17X168	Acorn Nut	6
2	17X169	Motor Housing Cover (includes IEC power cord)	1
3	17X170	Hex Spacer, Long (not shown, located inside item 2)	6
4	17W092	Set of Motor Rubber Rings and Plastic Net	3
6	17X173	Motor, 230V	3
7	17X174	Hex Spacer, Short	6
10	17X177	Motor Table	1
11	17X178	Flat Washer	6
12	17X179	Hex Head Screw Cap	6
20	17Y218	Power cord, IEC	1
21†	17Y089	Cord Adapter, US, NEMA	1
22†	17A242	Cord Adapter, Australia	1
23†	15G961	Cord Adapter, Switzerland	1
24†	15G960	Cord Adapter, Denmark	1
25†	15G959	Cord Adapter, Italy	1
26†	15G958	Cord Adapter, Europe, Schuko	1
27 (not shown)	121249	Cord Retainer for Cord Adapters	1

† Cord Adapters are sold separately from LazerVac 330 (25E237)

Auto Filter Cleaner Assembly (LazerVac)

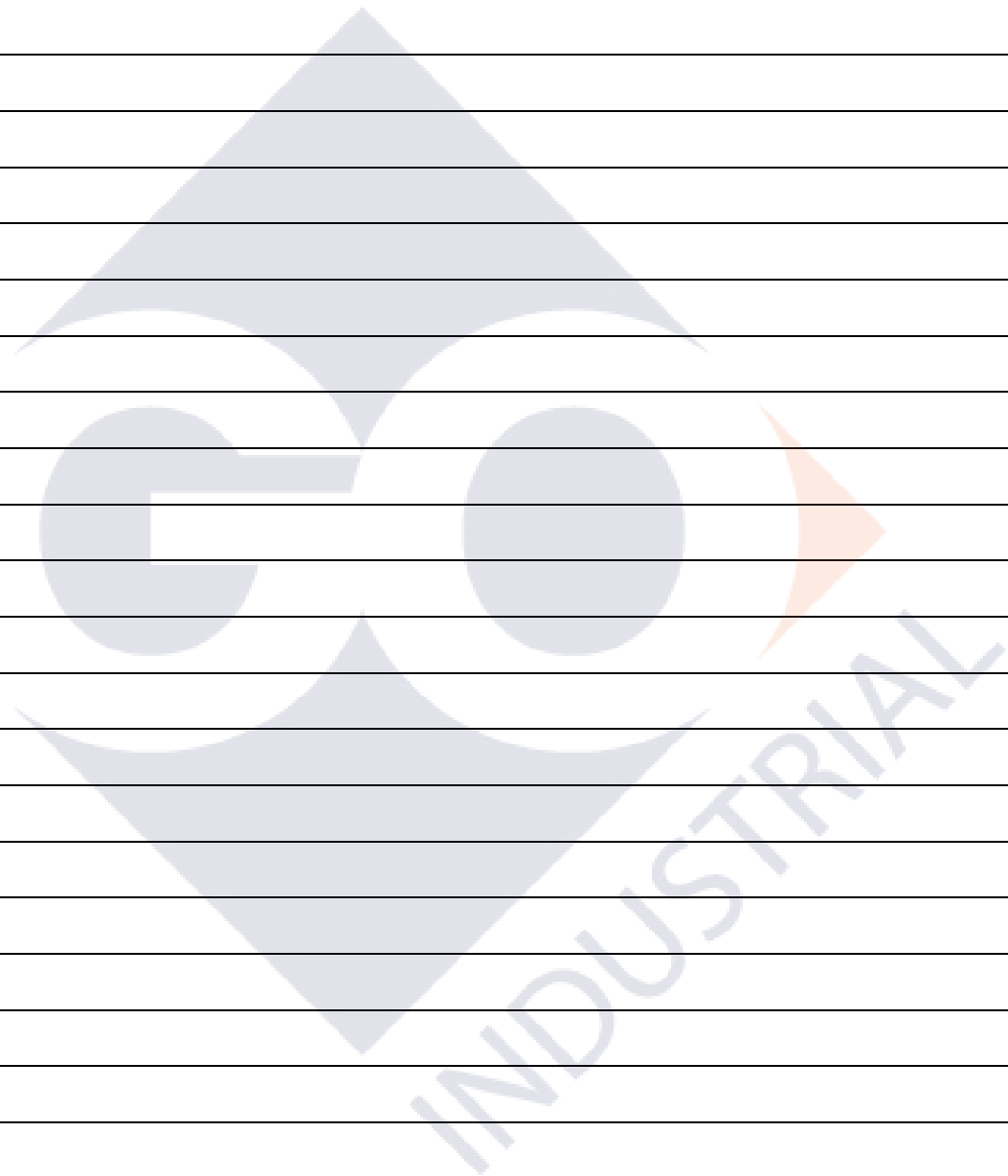


	Part Number	Description	Qty
1	17X182	Auto Filter Cleaner Assembly Motor Stand	1
2	17X383	120V Filter Cleaner Assembly Motor	1
	17X181	230V Filter Cleaner Assembly Motor	1
3*	17X180	Filter Cleaner Bar, Support (set of 2)	1
4†	17X183	Filter Cleaner Plastic Insert	1

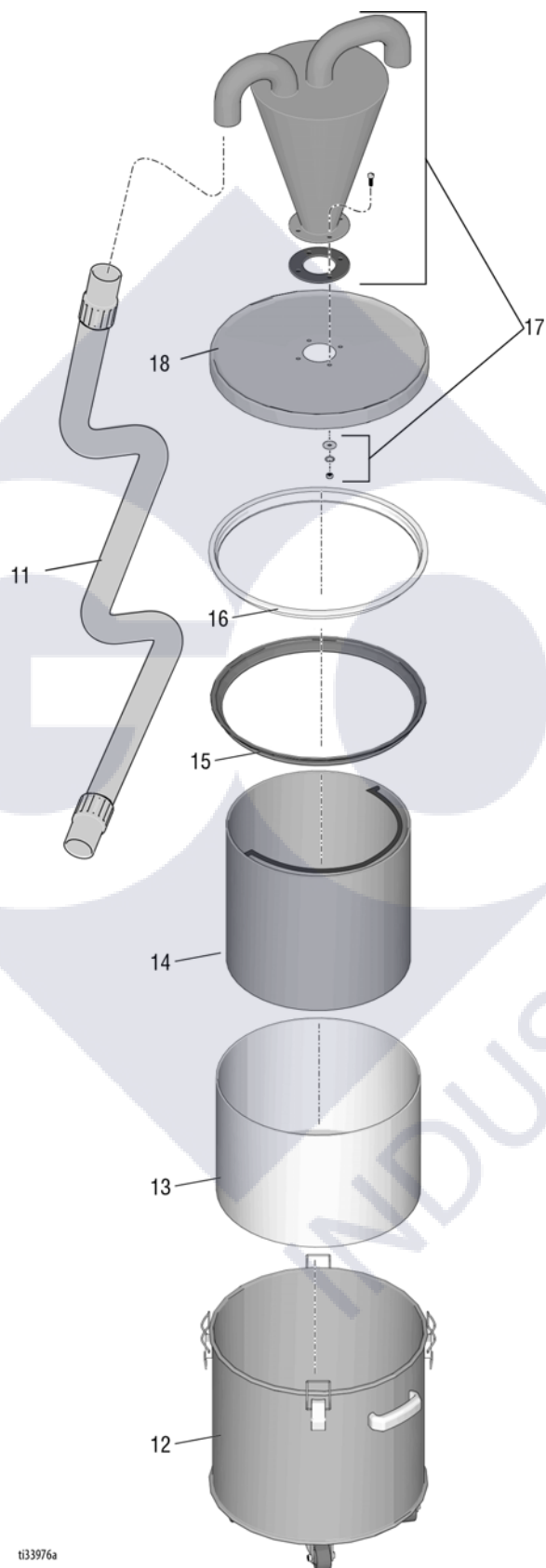
* LazerVac 230 and 330 come with one replacement set of item 3

† LazerVac 230 and 330 come with three replacements of item 4

Notes



Cyclone 20 Assembly and Accessories

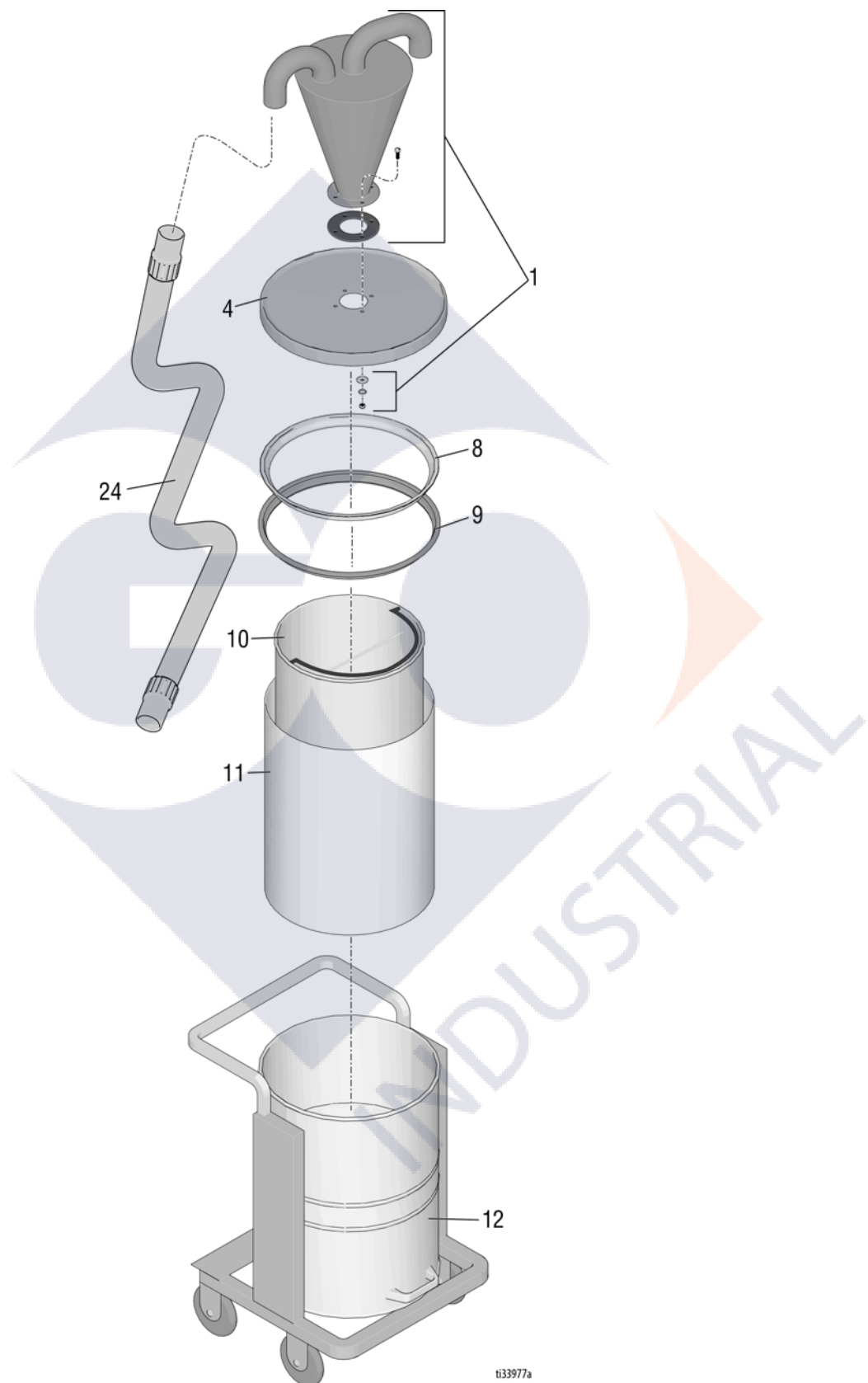


Cyclone 20 Assembly and Accessories Parts List

	Part Number	Description	Qty
11*	17X693	Short Vacuum Hose, Standard, 2" (to connect to LazerVac)	1
12	17X694	Debris Tank	1
13	17X695	Dust Bag (set of 20)	1
14	17X696	Dust Bag Holder	1
15	17X197	Cyclone Seal, Rubber	1
16	17X196	Cyclone Ring, Metal	1
17	17X206	Cyclone Head	1
18	17X209	Lid Base	1

* 2" Heavy Duty, High Temperature Hose available: P/N 17W154

Cyclone 32 Assembly and Accessories

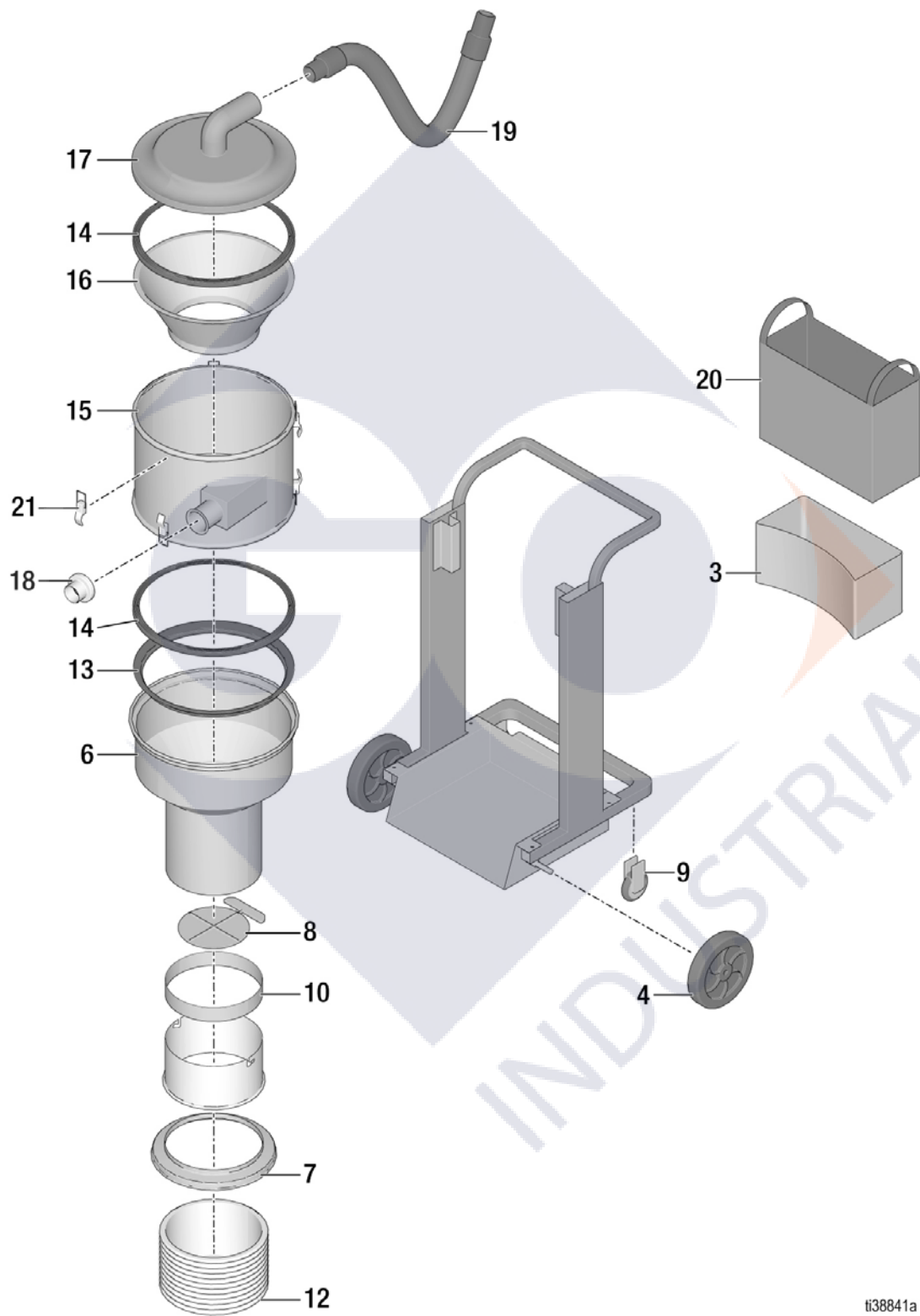


Cyclone 32 Assembly and Accessories Parts List

	Part Number	Description	Qty
1	17X206	Lid Funnel	1
4	17X209	Lid Base	1
8	17X196	Cyclone Ring, Metal	1
9	17X197	Cyclone Seal, Rubber	1
10	17X215	Dust Bag Holder	1
11	17X216	Dust Bag (35" x 47") (set of 20)	1
12	17X217	Separator Main Frame	1
24*	17X693	Short Vacuum Hose, Standard, 2" (to connect to LazerVac)	1

* 2" Heavy Duty, High Temperature Hose available: P/N 17W154

Cyclone LP Assembly and Accessories



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Cyclone LP Assembly and Accessories Parts List

	Part Number	Description	Qty
3	19B348	Tool Box	1
4	19B345	10" Wheel	2
6	19B344	Separator Lower Body	1
7	17X930	Bag Adapter	1
8	19B350	Dust Flap Cover	1
9	19B346	4" Caster	2
10	17X154	Belt (to secure Vacuum Dust Collection Bag)	1
12	17W295	Plastic Bag	1
13	17X196	Metal Ring (main body seal)	1
14	17X197	Rubber Seal (main body)	2
15	19B343	Separator Mid Body	1
16	17X235	Base Filter Funnel	1
17	19B342	Lid	1
18	19B341	Hose Inlet	1
19*	17X693	Vacuum Hose, short	1
20	19B779	Tool Bag	1
21	17X205	Drum Latch	6
* 2" Heavy Duty, High Temperature Hose available: P/N 17W154			

Technical Data

LazerVac 230 (25M858)		
Electrical Power Requirements - 120 Vac, 60 Hz, 20 A, 1Ø		
Air Flow (without hose) - 1 vacuum motor: 135 cfm, 2 vacuum motors: 262 cfm		
Air Flow (with 2" x 30' hose) - 1 vacuum motor: 93 cfm, 2 vacuum motors: 178 cfm		
Filtration - 99.3% at 0.3 µm particle size		
Dimensions/Weight (unpackaged)	US	Metric
Height	43 in.	109 cm
Length	27 in.	69 cm
Width	27 in.	69 cm
Weight	175 lb	79 kg
LazerVac 330 (25E237)		
Electrical Power Requirements - 230 Vac, 50/60 Hz, 16 A, 1Ø		
Air Flow (without hose) - 1 vacuum motor: 139 cfm, 2 vacuum motors: 263 cfm, 3 vacuum motors: 386 cfm		
Air Flow (with 2" x 30' hose) - 1 vacuum motor: 77 cfm, 2 vacuum motors: 147 cfm, 3 vacuum motors: 202 cfm		
Filtration - 99.3% at 0.3 µm particle size		
Noise level (dBa)		
Sound power	100 dBa per ISO 3744	
Sound pressure	83 dBa measured at 3.1 feet (1m)	
Dimensions/Weight (unpackaged)	US	Metric
Height	43 in.	109 cm
Length	27 in.	69 cm
Width	27 in.	69 cm
Weight	180 lb	81 kg
Cyclone 20 (25M861)		
Dimensions/Weight (unpackaged)	US	Metric
Height	44 in.	112 cm
Length	23 in.	58 cm
Width	23 in.	58 cm
Weight	50 lb	23 kg
Cyclone 32 (25M862)		
Dimensions/Weight (unpackaged)	US	Metric
Height	58 in.	147 cm
Length	26 in.	66 cm
Width	26 in.	66 cm
Weight	90 lb	41 kg
Cyclone LP(25R090)		
Dimensions/Weight (unpackaged)	US	Metric
Height	62 in.	157 cm
Length	28 in.	71 cm
Width	32 in.	81 cm
Weight	125 lb	57 kg

All trademarks or registered trademarks are the property of their respective owners.

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

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 1-800-690-2894 to identify the nearest distributor.

*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 3A5576

Graco Headquarters: Minneapolis

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www.graco.com
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