

Industrial Vacuums

Air Reversal Filtration

Operations and parts manual



Industrial Contractors' Supplies, Inc.

- Dust Director Division -

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IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

This machine is for commercial use.

WARNING



DANGER: Failure to read and observe all DANGER statements could result in severe bodily injury or death. Read and observe all DANGER statements found in your Owner's Manual and on your machine.



WARNING: Failure to read and observe all WARNING statements could result in injury to you or to other personnel; property damage could occur as well. Read and observe all WARNING statements found in your Owner's Manual and on your machine.



CAUTION: Failure to read and observe all CAUTION statements could result in damage to the machine or to other property. Read and observe all CAUTION statements found in your Owner's Manual and your machine.



DANGER: Failure to read the Owner's Manual prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could result as well. You must have training in the operation of this machine before using it. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine.



DANGER: Operating a machine that is not completely or fully assembled could result in injury or property damage. Do not operate this machine until it is completely assembled. Inspect the machine carefully before operation. Use only as described in this manual. Use only the manufacturer's recommended attachments.



DANGER: Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials.



DANGER: Do not pick up flammable fluids, dust or vapors.



DANGER: Do not vacuum anything that is burning or smoking, such as cigarettes, matches, or hot ashes.




DANGER: This machine is not suitable for picking up health endangering dust.





DANGER: Using a machine with a damaged power cord could result in an electrocution. Do not use the machine if the power cord is damaged. Do not use the electrical cord to move the machine. Keep cord away from heated surfaces. Do not unplug by pulling on the cord; grasp the plug, not the cord. Turn off all controls before unplugging. Do not close a door on cord or pull around sharp edges or corners.





DANGER: Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Disconnect the power supply before attempting any maintenance or service.


 **Warning:** Operating a machine without observing all labels, decals, etc., could result in injury or damage. Read all machine labels before attempting to operate the machine. Make sure all of the labels are attached or fastened to the machine. Get replacement labels and decals from the manufacturer's distributor.


 **Warning:** Electrical components can "short-out" if exposed to water or moisture. Keep the electrical components of the machine dry. Always store the machine in a dry area.


 **Warning:** Use of this machine to move other objects or to climb on could result in injury to the operator or damage to the machine. Do not use this machine as a step or furniture. Do not allow to be used as a toy. Close attention is necessary when used by or near children.


 **Warning:** Moving parts of this machine can cause injury and/or damage. Keep hands, feet, loose clothing, hair, fingers, and all parts of the body away from openings and moving parts.


 **Warning:** Electrocution could occur if you handle the plug or appliance with wet hands. Do not handle plug or appliance with wet hands.


 **Warning:** The machine employs a removable float for wet pick-up operation to reduce risk of electrical shock. Always install float before any wet pick-up operation.


 **Warning:** Rotating fan blades inside the cover. Before opening cover, switch off machine. Wait until the fan/brush stops completely or dust and debris may be ejected.

 **Warning:** If the machine is not working properly, has been dropped, damaged, left outdoors, or dropped into water, return it to an Authorized service center.

 **Warning:** Damage could occur to machine if openings are blocked. Do not put any object into openings. Do not use any opening blocked: keep free of dust, lint, hair, and anything that may reduce air flow.

 **Warning:** Injury could occur to the operator or the machine if used without the dust bag and/or filters in place. Do not use the machine without the dust bag and/or filters in place.

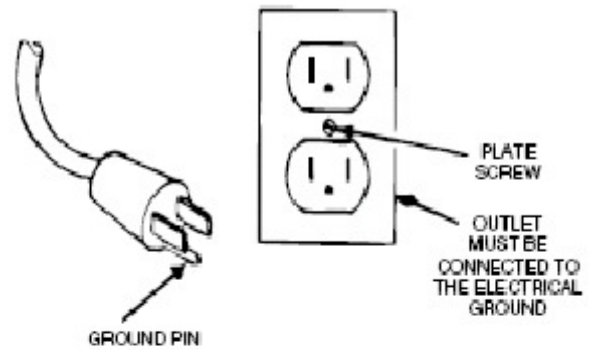
 **Warning:** Injury to the operator and/or damage to the machine could occur when cleaning on stairs, unless caution is used. Use extreme caution when cleaning on stairs.

 **Warning:** To reduce the risk of electrical shock, always use a 3-wire electrical system connected to the electrical ground. Whenever possible connect the machine to an outlet protected by a ground fault interrupter (GFCI). See "Grounding Instructions."

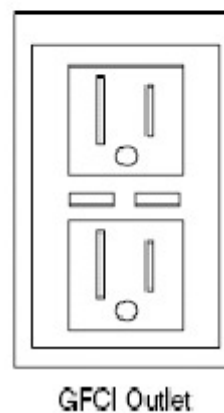
SAVE THESE INSTRUCTIONS


120 Volt Machine Instructions For Connection To The Power Supply And The Electrical Ground


This machine must be connected to the electrical ground to protect the operator from electrical shock. The machine has an approved power cord with three conductors and a plug with three terminals. Connect the plug to a receptacle that has three holes and is connected to the electrical ground. The green (or green and yellow) conductor in the cord is the ground wire. Never connect this wire to any terminal other than the ground terminal.





This machine uses a 120 volt AC 60 cycle electrical circuit. Make sure you have the correct frequency and voltage before connecting the power cord to an outlet. The machine has a plug as shown in Figure 1. If a receptacle connected to the electrical ground as shown in Figure 1 is not available, have one installed by an electrical contractor. Do not use an adapter.




-  **Warning:** To reduce the risk of electrical shock, protect the machine from rain. Keep the machine in a dry area.

-  **Warning:** To reduce the risk of electrical shock, always use a 3-wire electrical system connected to the electrical ground. Whenever possible connect the machine to an outlet protected by a ground fault interrupter (GFCI).

-  **Warning:** Do not cut, remove or break the ground pin. If the outlet does not fit the plug, consult your electrical contractor.

-  **Warning:** Have worn, cut or damaged cords and plugs replaced by an authorized service person.

-  **Warning:** If it becomes necessary to use an extension cord to reach an electrical outlet, you must use one that is at least one size larger in wire size. Such as a power cord that is marked 12/3 would need to use an extension cord that is marked 10/3. Do not use an extension cord that is undersized.

IMPORTANT INSTRUCTIONS

- Before use the equipment must be correctly assembled with all of its components
- Check that the electrical outlet is correct for use with the plug on the machine
- Before connecting, check that the specified motor voltage corresponds to the main voltage available
- Never use the equipment near flammable, explosive or toxic substances: sparks from the motor could cause dangerous reactions.
- Always unplug the machine from the electrical outlet when leaving machine unattended or before attempting any repair.
- Service and repair should be done by qualified personnel only. Use only original manufacturer's replacement parts.

Operation

This machine is a commercial vacuum designed for dry pick up only. The three motors can be run simultaneously or independently as the job requires. The machine can be equipped with a vacuum equalizer hose (VEK) which enables the use of standard plastic garbage bags for the collection of dust and debris, it is recommended that heavy duty "Contractor" style bags are used. When the bag is full and ready to be removed, turn off all motors and allow the machine to stop completely before opening machine up. Prior to opening machine operate the filter shaker handle to knock excess debris off of the filter. To remove the debris collection bag, lift up on the bin release handle on the collection bin lower the collection bin to the floor and roll it out from under the machine. Close the debris collection bag and either tie the opening shut or use a plastic wire tie to close and prevent dust from escaping, the bag can now be removed for disposal. When replacing the collection bag make sure the bag is fully opened and fully lines the lower collection tank.



Depending on the type of dust and debris being picked up it may be necessary to operate the filter shaker before it is time to empty the collection bag. To clean the filter, slide the filter shaker handle to the right, tion. This action will shake the filter assembly and allow the loose dust to fall into the collection bin, at the same time it blows air backwards through the filter

To extend the life of the filter you may want to occasionally remove the complete filter assembly and vacuum or rinse the filter. Allow the fabric to dry fully before returning it to the inside of the machine.

Filtration can also be enhanced by adding one of the various cartridge filters to the bottom of the motor head assembly. These optional filters can be purchased from your Distributor, the optional filters available are listed below:

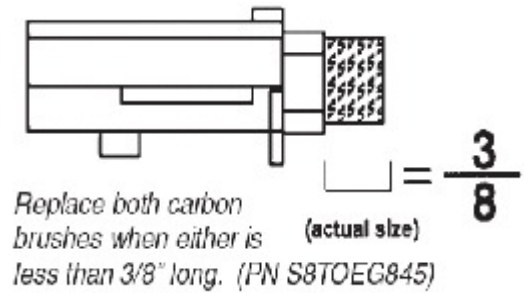
S8321142PH Cartridge Filter, HEPA



Periodic Maintenance

(Every six to twelve months)

1. Check filter for wear, replace dirt saturated filters that do not respond to normal cleaning.
2. Inspect gasket seals and replace those which have begun to leak.
3. Examine carbon motor brushes and commutator.



Servicing The Filter

The filter is accessed by lifting the head assembly off the tank.

The Filter is located underneath the cyclone tube. Remove the black hand knob, and remove the cyclone tube first. Remove the black hand knob holding the filter in place, the filter can now be removed from the head.

Note:

- Be sure to frequently clean the filters.
- Allow filters to thoroughly air dry after washing them before returning them to the machine.
- Worn filters can affect vacuum performance. Replace the filters when they become worn out and when normal cleaning will not restore vacuum performance.

Servicing The Vac Motor

Motor Replacement

1. Disconnect power cord from power source.
2. To access the vac motor, remove the screws that attach the main cover to the head assembly and set the cover to one side.
3. Disconnect the motor's 2 red lead wires from the main wiring bridge.
4. Disconnect green/yellow wire by removing the screw from the motor core.
5. Remove the four motor mounting screws.
6. Remove motor plate and set aside.
7. Take out the motor and remove the upper and lower gaskets.
8. Inspect gaskets. If they show signs of wear replace the.
9. Install gaskets onto new motor ensuring that they are properly seated.
10. Install the new motor. Make sure foam mufflers are positioned properly.
11. Attach motor plate to motor.
12. Connect green/yellow wire to motor core.
13. Connect motor's 2 red lead wires to main wiring bridge.
14. Re-assemble vac cover.
15. Test for proper operation.

Servicing The Vac Motor

Carbon Brush Replacement

1. Disconnect power cord from power source.
2. To access the vac motor, remove the screws that attach the main cover to the head assembly and set the cover to one side.
3. Remove the motor cover by removing two screws. See Fig. 1
4. Remove the wire terminal from carbon brush housing. See Fig. 2
5. Remove the carbon brush assembly by removing the 2 screws that attach it to the vac motor. See Fig.3
6. Inspect armature commutator. If it is extremely pitted, grooved or not concentric then the motor will need to be replaced or sent to a qualified service center.
7. Slide the yellow brush housing from plastic holder. See Fig. 4
8. Reverse steps 7 through 4 to install new brush and housing (part number S8TOEG845)
9. Repeat steps 4 through 8 for the other carbon brush.
10. Reverse steps 3 and 2 for re-assembly.
11. Test for proper operation.



Fig. 1



Fig. 2



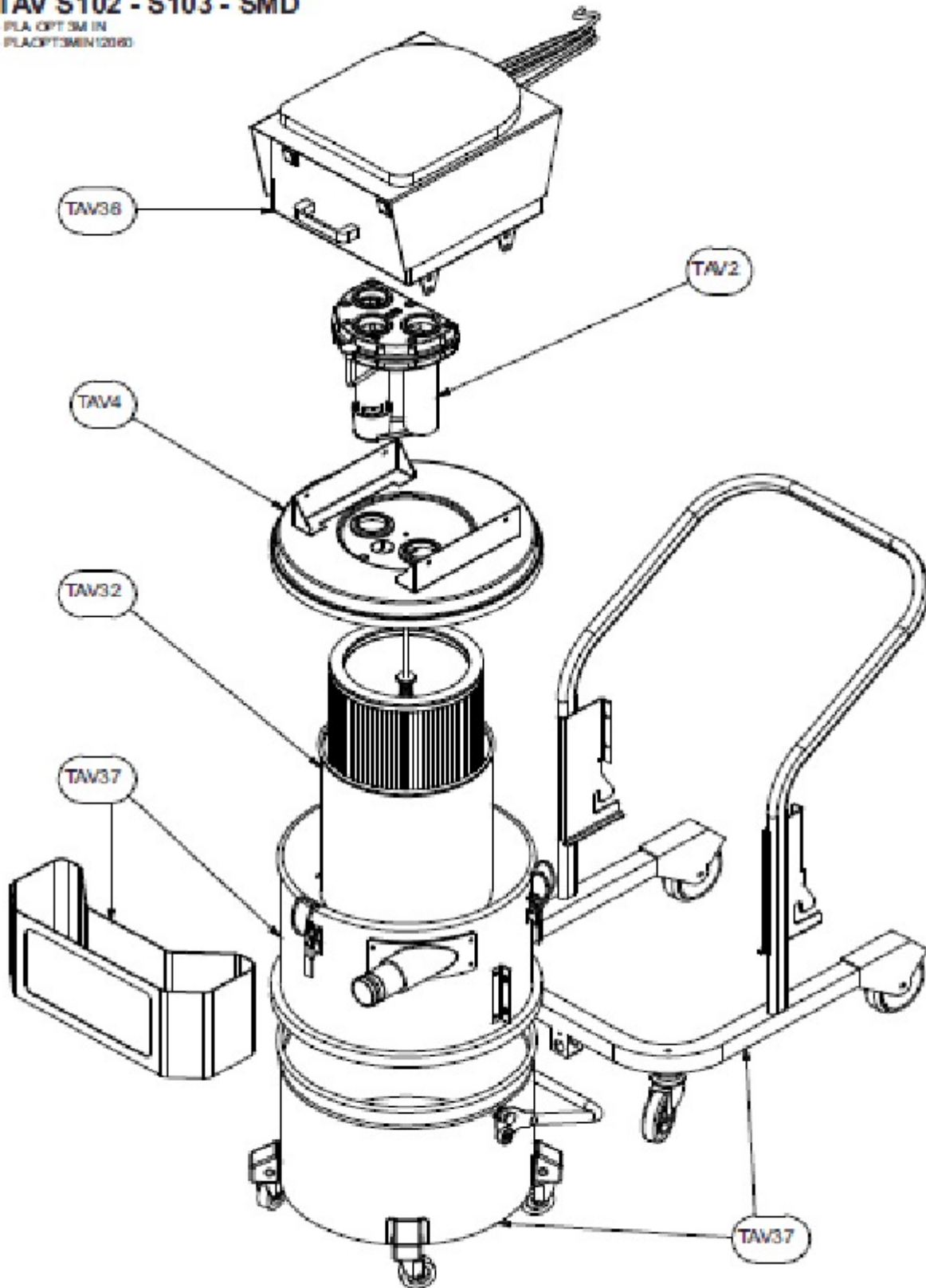
Fig. 3



Fig. 4

TAV S102 - S103 - SMD

- PLA OPT 3M IN
- PLACOPT3M6IN12060



TAV 2

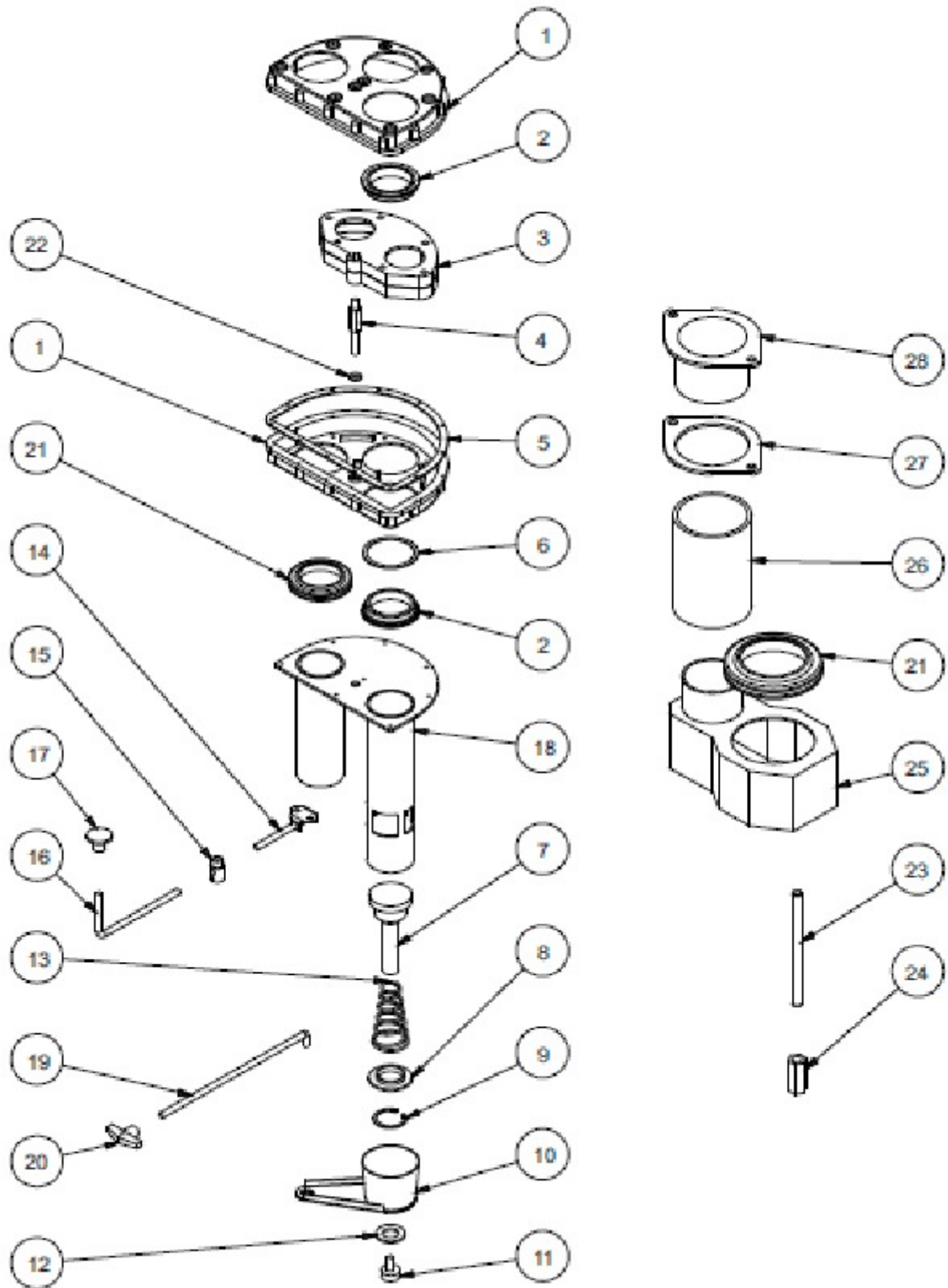


Diagram 2

| Item | Part Number | Description |
|------|-------------|--------------------------|
| 1 | S82010330 | 3 Hole Valve Body, Upper |
| 2 | S82020000 | Ring Valve |
| 3 | S82030030 | Air Diverter Box |
| 4 | S82040030 | Hexagonal Bolt |
| 5 | S82050009 | Gasket |
| 6 | S82060000 | Compensation Ring |
| 7 | S82070000 | Nylon Piston |
| 8 | S82080000 | Aluminum Piston Washer |
| 9 | S82090000 | Snap Ring |
| 10 | S82100000 | Block Piston |
| 11 | S82110009 | Vibration Bumper |
| 12 | S82120000 | Washer |
| 13 | S82130000 | Conical Spring |
| 14 | S82140000 | Lever |
| 15 | S82150000 | Lever Connector |
| 16 | S82160000 | Lever |
| 17 | S82170000 | Knob |
| 18 | S82180250 | Intake Manifold |
| 19 | S82190253 | Extension Lever |
| 20 | S82200230 | Handle |
| 21 | S82210009 | Guide |
| 22 | S82220009 | Washer |
| 23 | S82230100 | Piston Extension |
| 24 | S82240000 | Connector |
| 25 | S82250000 | Recovery Box |
| 26 | S82260009 | Rubber Sleeve |
| 27 | S82270009 | Flange |
| 28 | S82282500 | Tube Flange |

TAV 4

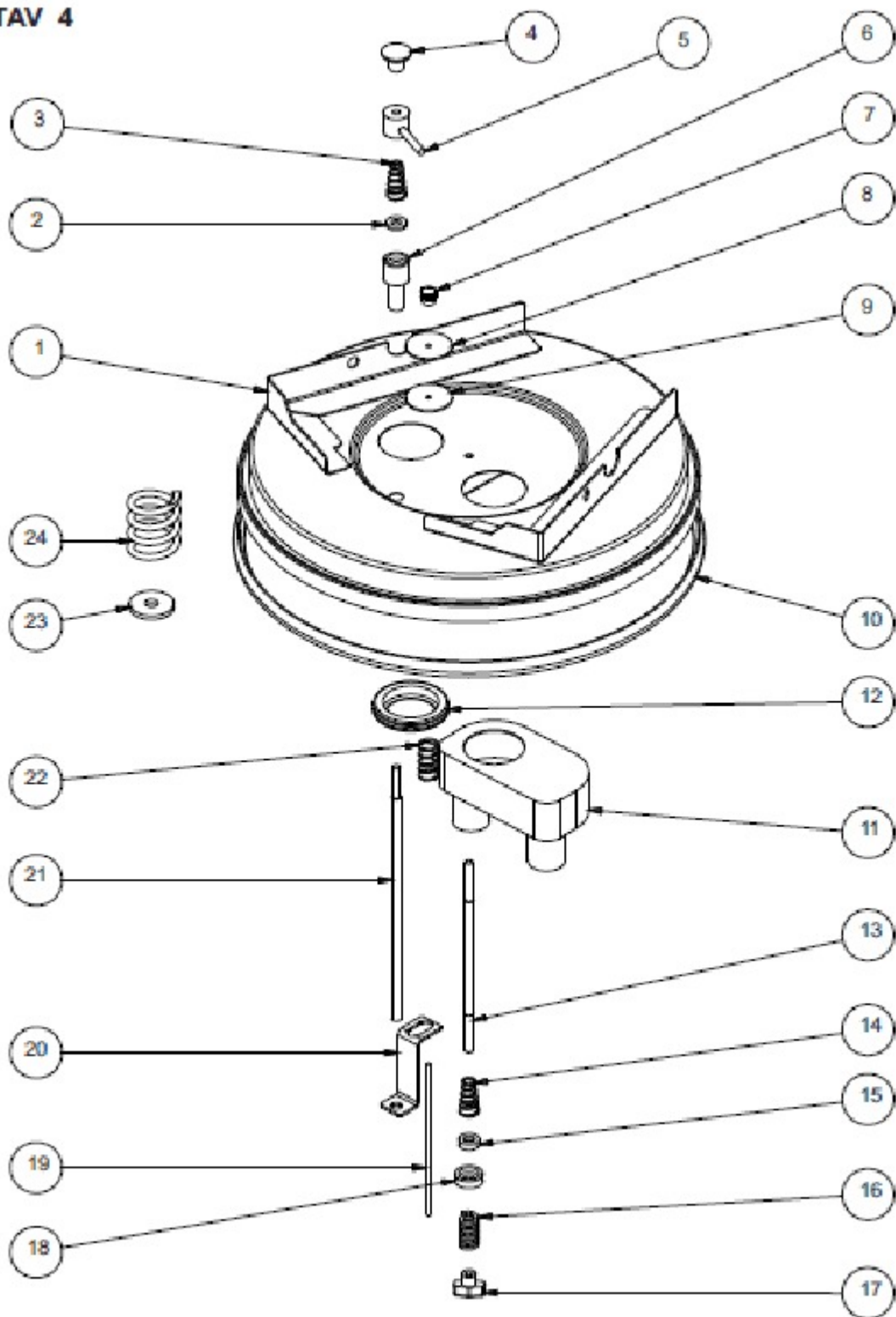


Diagram 4

| Item | Part Number | Description |
|------|-------------|-------------------------------|
| 1 | S8401000W | Lid |
| 2 | S84020000 | Washer |
| 3 | S84030000 | Conical Spring |
| 4 | S82170000 | Knob |
| 5 | S84050000 | Block System |
| 6 | S84060000 | Guide |
| 7 | S84070000 | Exhaust Valve Adjustment Knob |
| 8 | S84080045 | Washer |
| 9 | S84090009 | Washer |
| 10 | S84100000 | Gasket |
| 11 | S83211T002 | Collector, Filter |
| 12 | S82210009 | Guide |
| 13 | S84130370 | Filter Support Rod |
| 14 | S84140000 | Spring |
| 15 | S84020000 | Spacer |
| 16 | S84160000 | Spring |
| 17 | S84170000 | Knob |
| 18 | S84180000 | Seat Ring |
| 19 | S84190000 | Valve actuator rod |
| 20 | S84200000 | Bracket |
| 21 | S84210345 | Filter Shaker Rod |
| 22 | S84220000 | Spring |
| 23 | S84230000 | Washer |
| 24 | S84240070 | Spring |

TAV 36

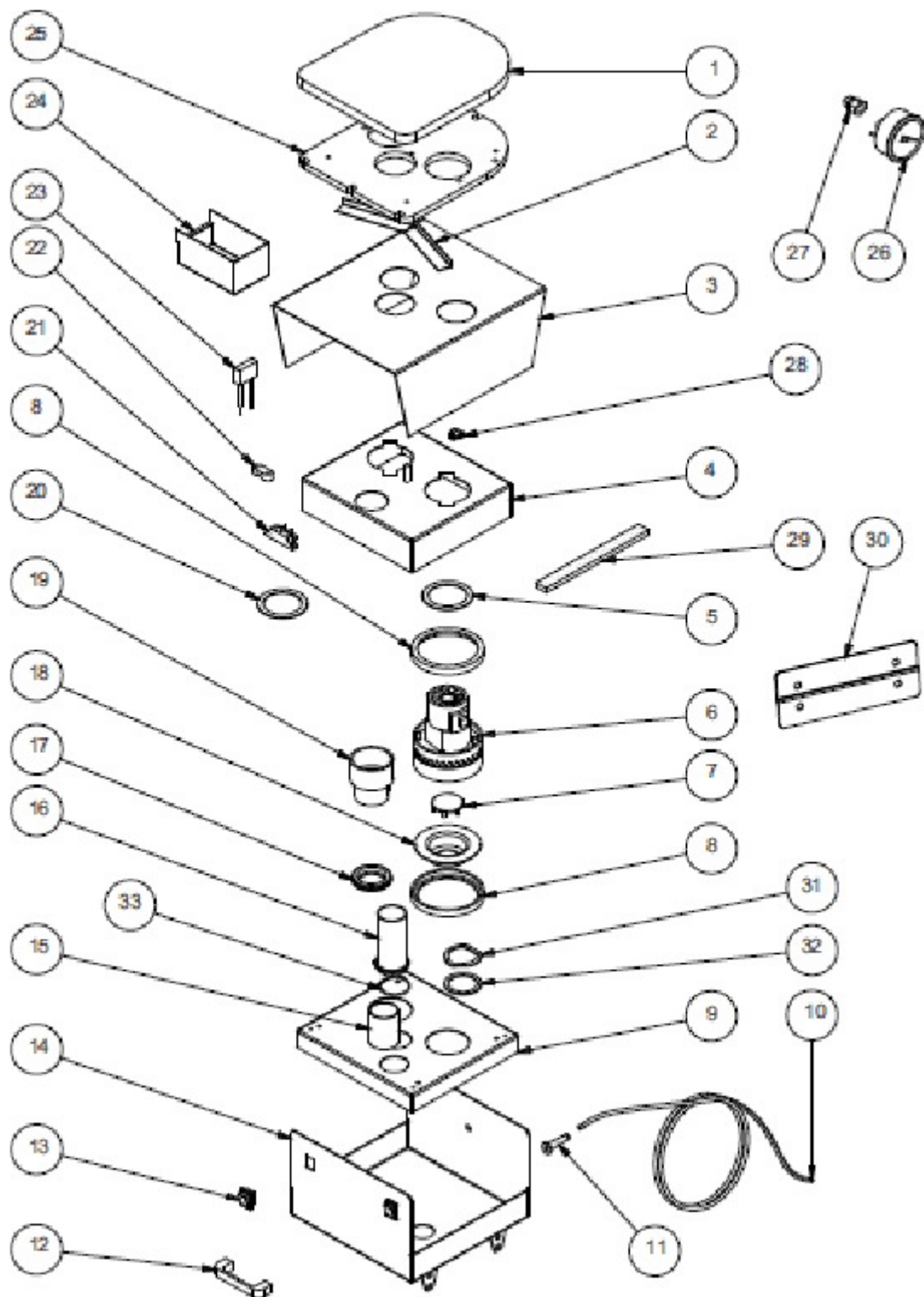


Diagram 36

| Item | Part Number | Description |
|------|-------------|------------------------|
| 1 | S836010000 | Cover, Top |
| 2 | S836020000 | Air Separator |
| 3 | S836031000 | Cover, 3 motor |
| 4 | S836041000 | Motor Support, 3 motor |
| 5 | S836050000 | Gasket |
| 6 | S81119S | Motor 800 watt 110V |
| 7 | S836070000 | Valve |
| 8 | S836080000 | Gasket, Motor |
| 9 | S836091000 | Conveyor, 3 motor |
| 10 | T80070 | Power Cord |
| 11 | S836110000 | Strain Relief |
| 12 | S836120000 | Handle |
| 13 | S836130000 | Switch |
| 14 | S836141000 | Housing |
| 15 | S836150070 | Tube 70mm |
| 16 | S836160160 | Tube 160mm |
| 17 | S802210009 | Guide |
| 18 | S836180000 | Valve Plate |
| 19 | S836190000 | Filler Neck |
| 20 | S836200000 | Gasket, Cooling Fan |
| 21 | S836210000 | Terminal Block |
| 22 | S836220000 | Clamp, Cord |
| 23 | S836230000 | RFI Capacitor |
| 24 | S836240000 | Drain Box |
| 25 | S836251009 | Cover |
| 26 | S836260000 | Vacuum Gauge |
| 27 | S836270000 | Fitting |
| 28 | S836280000 | Fitting, Elbow |
| 29 | S836290000 | Gasket |
| 30 | S836300000 | High Valve Adapter |
| 31 | S802060000 | Compensator Ring |
| 32 | S836320000 | Washer |
| 33 | S836330000 | O-Ring |

TAV 32

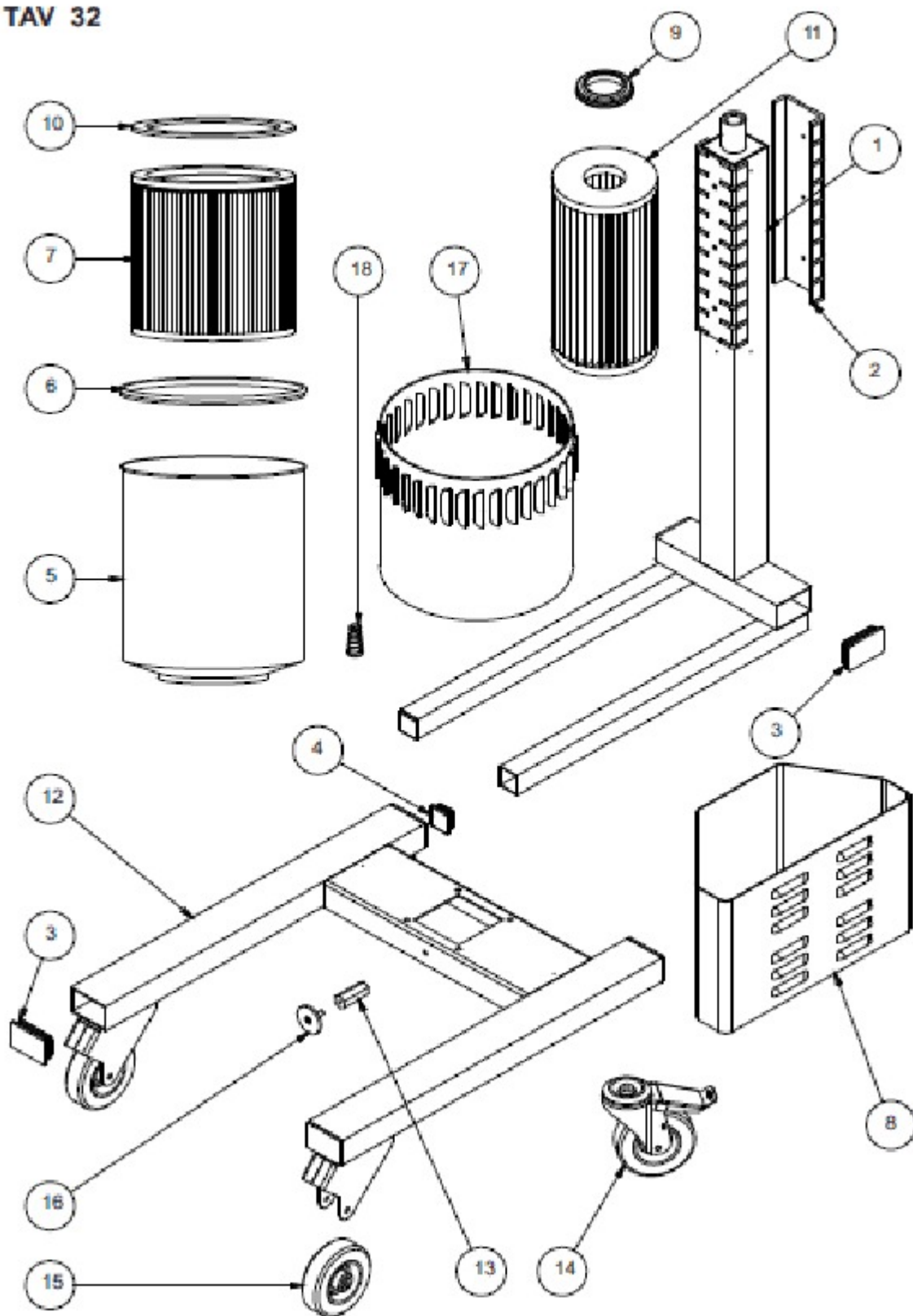


Diagram 32

| Item | Part Number | Description |
|------|-------------|----------------------|
| 1 | S832010000 | Internal Column |
| 2 | S832020000 | Guide Track |
| 3 | S832030000 | Cap |
| 4 | S832040000 | Cap |
| 5 | S832053580 | Cyclone Shield |
| 6 | S832060000 | Filter Seal |
| 7 | S820826 | Filter, Main |
| 8 | S832080000 | Tool Bin, Left Side |
| 9 | S832081000 | Tool Bin, Right Side |
| 10 | S802210040 | Guide |
| 11 | S832100000 | Gasket |
| 12 | S8321142PH | HEPA Filter |
| 13 | S832120000 | Cart Frame |
| 14 | S802240000 | Connector Nut |
| 15 | S832140150 | Swivel Caster |
| 16 | S832150150 | Wheel |
| 17 | S832160000 | Bin Stop |
| 18 | S83217580D | Cyclone Shield |
| 19 | S832180000 | Spring |

TAV 37

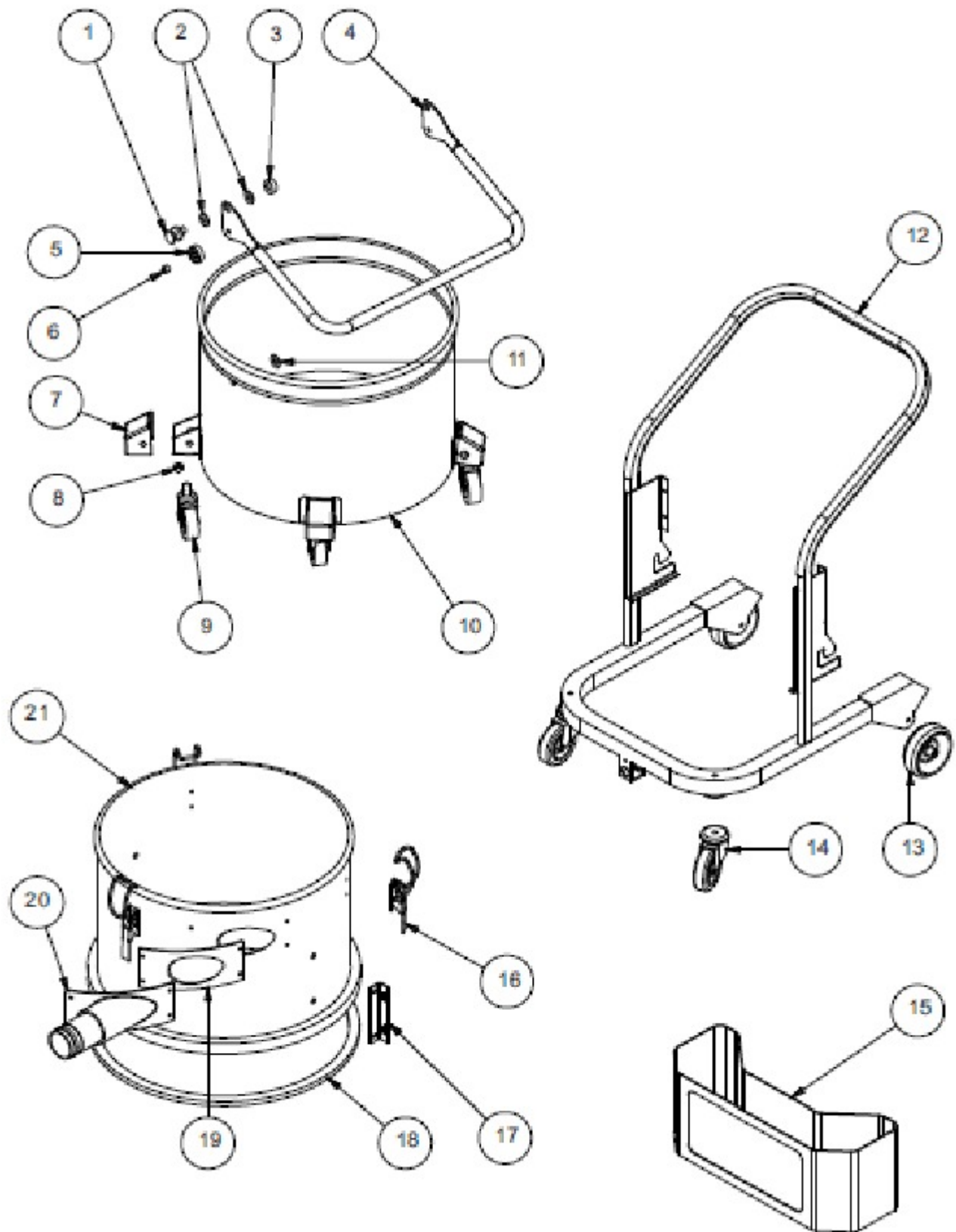


Diagram 37

| Item | Part Number | Description |
|------|-------------|--------------------|
| 1 | S837010000 | Tank Coupling |
| 2 | S837020009 | Nylon Washer |
| 3 | S837030000 | Spacer Sleeve |
| 4 | S837040000 | Bin Release Handle |
| 5 | S837050000 | Bearing |
| 6 | S837060000 | Bushing |
| 7 | S831040000 | Wheel Cover |
| 8 | S831030000 | Cap Locknut |
| 9 | S831050000 | Swivel Caster |
| 10 | S8371070X0 | Collection Bin |
| 11 | S837110009 | Washer |
| 12 | S837121000 | Cart |
| 13 | S832150150 | Wheel |
| 14 | S832140150 | Swivel Caster |
| 15 | S837150000 | Tool Storage Bin |
| 16 | S808030000 | Clamp |
| 17 | S837170000 | Bracket |
| 18 | S804100000 | Gasket |
| 19 | S808050609 | Gasket, Inlet |
| 20 | S808130000 | Inlet |
| 21 | S8372110X0 | Tank, Intermediate |

Warranty Policy

Limited Warranty

ICS warrants new cleaning equipment against defects in material and workmanship under normal use and service to the original purchaser as detailed below.

10 years

Subject to the conditions stated below, ICS warrants polyethylene tanks and housings to be free from defects in materials and workmanship for a period of ten years.

3 years

Subject to the conditions stated below, ICS warrants all automatic scrubber components to be free from defects in materials and workmanship for a 3-year period. Parts replaced or repaired are warranted for the remainder of the original warranty period.

1 year

Subject to the conditions stated below, ICS warrants all other cleaning equipment components to be free from defects in materials and workmanship for a 1-year period. Parts replaced or repaired are warranted for the remainder of the original warranty period. Batteries are pro-rated for one year.

ICS will furnish and charge for replacement parts, including transportation, to the original owner through an ICS authorized service center. If the part is returned within 30 days and is found defective, the owner will be credited for the cost of the replacement part including shipping and handling.

Labor charges are covered for one year from the date of purchase if provided by an authorized ICS service center.

Wear items exempt from warranty include belts, carbon brushes, power cords, wheels, pad drivers, clutch plates, brushes, pads, handle grips, filters, screens, throttle cables, hoses, and squeegees.

This warranty shall not apply to failures caused by misuse or abuse, improper maintenance as stated in the operation manuals, use of unauthorized repair parts, repairs by other than an ICS authorized service center, and damage in transit.

ICS disclaims and denies any liability for any direct, indirect, special incidental or consequential damage which may be suffered as a result of sale, delivery, servicing, use, loss of any product, downtime, labor, freight, or other charges not expressly included herein.



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