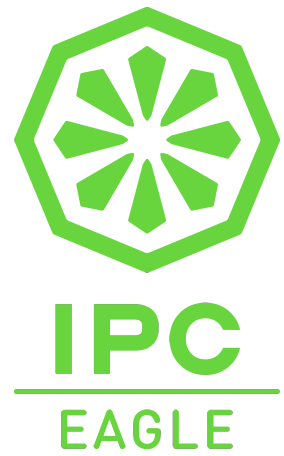


Industrial Vacuums

# Barrel Vac

Operations and Parts Manual



Models:  
BV190  
BV290  
BV390

# 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.

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**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:** Electrocutation 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.

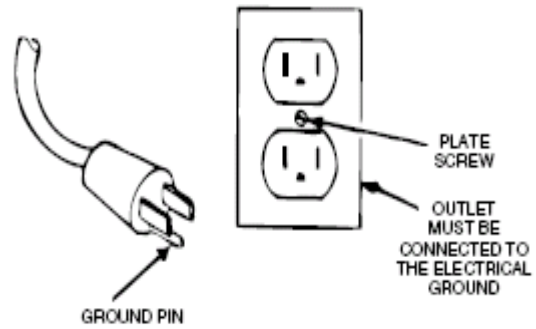


**Warning:** To reduce the risk of electrical shock, always use a 3-wire electrical system connected to the electrical ground. Whenever possible connect the machine to an outlet protected by a ground fault interrupter (GFCI). See "Grounding Instructions."

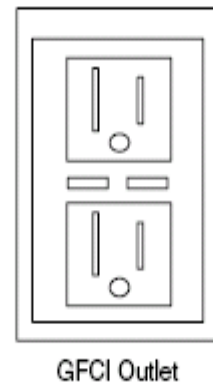
**SAVE THESE INSTRUCTIONS**

## 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

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- 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

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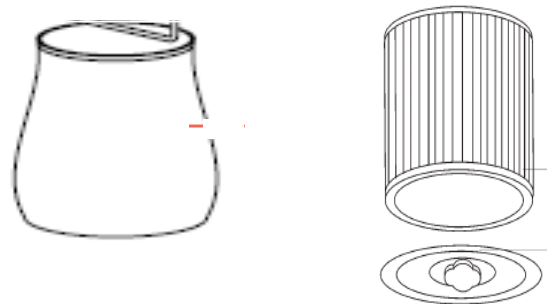
This machine is a commercial vacuum designed for wet and dry pick up. The motors can be run simultaneously or independently as the job requires. The machine is designed to sit on top of a standard 55 gallon steel drum.

It may be necessary to clean the filter before it is time to empty the drum. Turn off all of the motor switches and allow the motors to stop running. Remove the motor head from the top of the barrel ring, next remove the filter from the barrel ring opening and tap or brush the filter surface clean.

To extend the life of the filter you may want to occasionally remove the complete filter assembly and wash the filter bag. 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 and also by adding one of the Corolon Filters to the outside of the main polyester filter assembly. These optional filters can be purchased from your Distributor, the optional filters available are listed below:

- S82852 Cartridge Filter, Paper (will fit GC190, GC290 & GC390)
- S76061 Cartridge Filter, Polyester (will fit GC190, GC290 & GC390)
- S82995 Cartridge Filter, Hepa (will fit GC190, GC290 & GC390)
- S82855 Cartridge Filter Retainer (necessary to use optional cartridge filters on GC190, GC290 & GC390)
- T80086 Corolon Filter



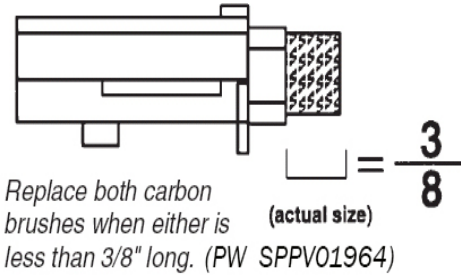
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## Periodic Maintenance

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### (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.



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## Servicing The Filter

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

The Polyester filter assembly is easily removed by simply lifting the filter basket out of the tank.

If the machine is equipped with one of the optional cartridge filters they are removed very easily. First remove the filter retainer by turning the black knob 90 degrees counter-clockwise. The cartridge filter will then slide off of the support assembly.

If the machine is equipped with a Corolon filter it is easily removed from the outside of the Polyester filter assembly by grasping it and sliding it off. The elastic band will stretch and the filter will easily slide off of the Polyester filter.

### 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 normal cleaning will not restore vacuum performance.

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## Servicing The Vac Motor

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### 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.

## 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.

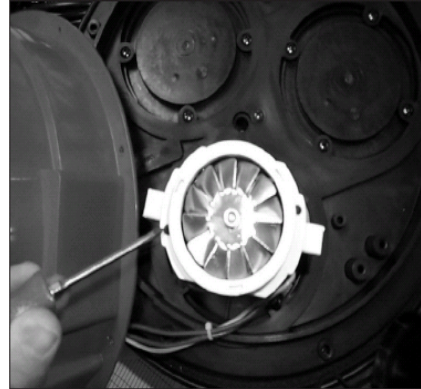


Fig. 1

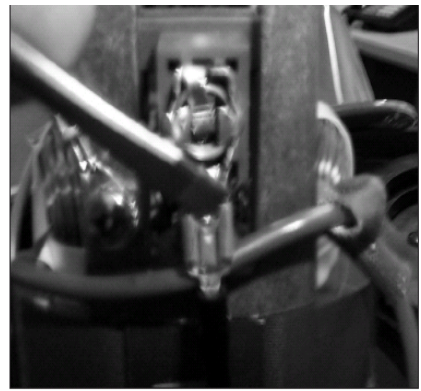


Fig. 2

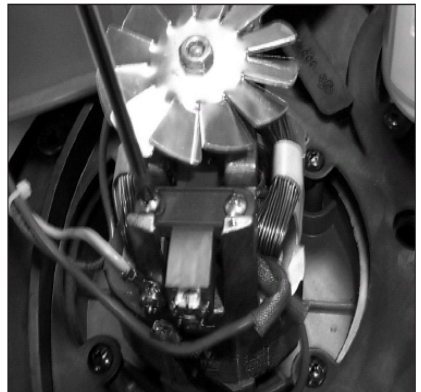


Fig. 3

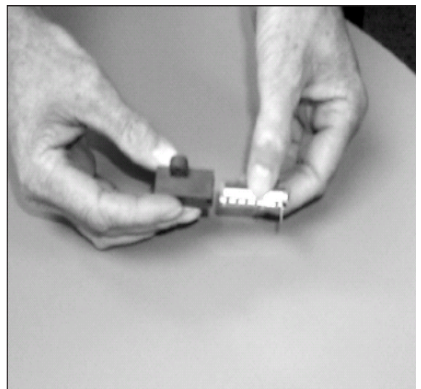
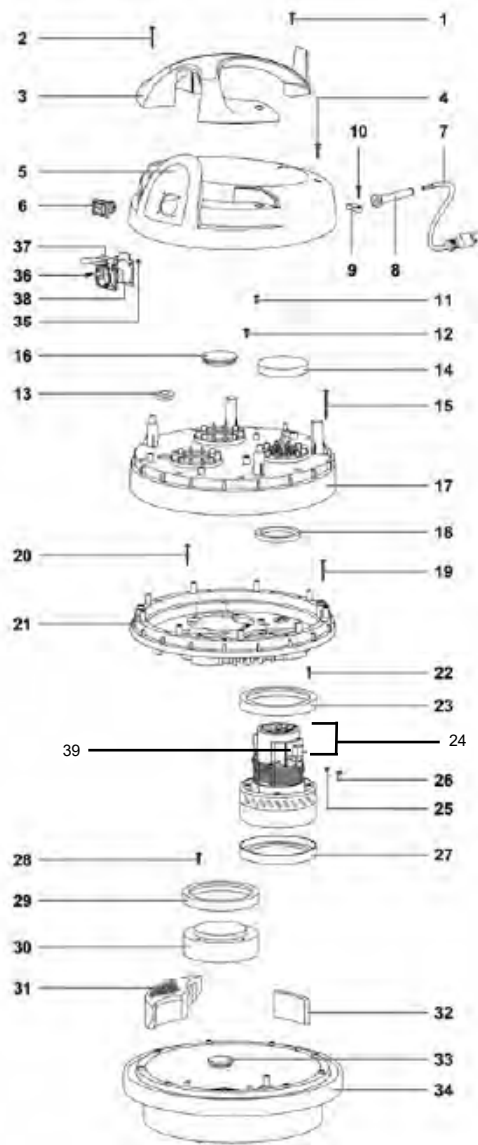


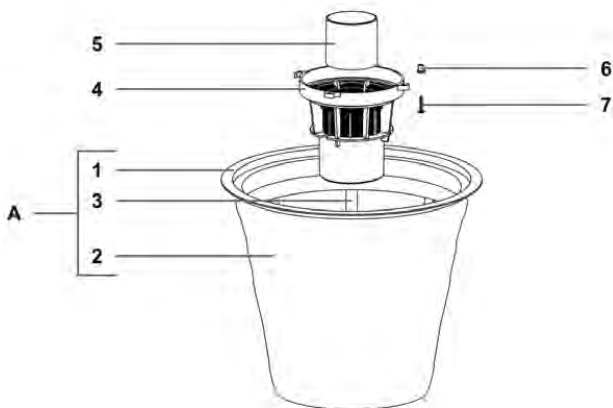
Fig. 4



# GC 1/90 Vacuum Motor Assembly



No.	Part #	Description	Qty.
*	PMQE00258	KIT ELETRIC 600 1MOT.AUTOEST.	1,00
*	MECB01827	WIRING 50CM MOTOR POKE-IN UL	1,00
*	FSVR00127	CLAMP	1,00
*	MECB01694	CONNECTING WIRE AWG-400-G/V-FF-4,2	1,00
*	MECB01702		1,00
*	MECB01527	CONNECTING WIRES AWG-350-ROS-FF-SP9	2,00
*	MECB01705	CONN.WIRE M.AWG-200-G/V-5,2-5,2	1,00
0001	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0002	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	2,00
0003	MPVR11825	HANDLE TOPPER 600 VERDE IPC AU	1,00
0004	VTVT72055	SCREW PFU TMT PHL 5X25 ZN BLACK	2,00
0005	MPVR12004	COVER TOPPER 600 NERO AU P/S	1,00
0006	MECI72195	ANTISPLASH SWITCH	1,00
0007	MECB01211	CABLE E.3X14AWG SJTW MT8,5 N5	1,00
0008	KTRI03358	FAIR-LEAD LONG	1,00
0009	MPVR28690	CABLE CLAMP	1,00
0010	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0011	KTRI03436	SCREW PAT TMT PHL 5X14 ZN BLACK	2,00
0012	KTRI03436	SCREW PAT TMT PHL 5X14 ZN BLACK	1,00
0013	MEVR72017	GUIDING SLIT FOR QUICK COUPLING	1,00
0014	FTDP38064	FILTER MTP/65 H=15 D.95	1,00
0015	VTVT40007	SCREW PAT TMT PHL 5X55 BLACK	9,00
0016	MPVR09575	CAP COVER SELF-EXTINGUISHING	2,00
0017	MPVR08501		1,00
0018	KTRI04227	WASHER H8 D85X65	1,00
0019	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	9,00
0020	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	3,00
0021	MPVR09319	MOTOR-FASTENER NEV.600 BLACK S-EXT.	1,00
0022	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	4,00
0023	KTRI04216	"L" GASKET W/O HOLES H=5,5	1,00
0024	MOMO00909	MOTOR BD381 AU 1000W 120/60	1,00
0025	VTRS00393	TOOTHED WASHER M4 UNI 8842	1,00
0026	VTVT01037	SCREW TC CROSS M 4X8 UNI 7687	1,00
0027	KTRI04216	"L" GASKET W/O HOLES H=5,5	1,00
0028	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	8,00
0029	KTRI04216	"L" GASKET W/O HOLES H=5,5	2,00
0030	MPVR08575	FAKE MOTOR LOWERED AU	2,00
0031	KTRI04140	ANTINOISE TRIANGLE H=51	3,00
0032	KTRI04141	GASKET MTP/30 AU-AD 50X10X85	3,00
0033	MPVR38058	BASE CAP	2,00
0034	PMBA00209		1,00
0035	VTDD00232	NUT M 4 UNI 5588	4,00
0036	VTVT01192	SCREW TSP CROSS M 4X12 UNI 7688	4,00
0037	MEVR01792	DOOR UL W/DOOR	1,00
0038	GUVR38060	SCHUKO GASKET SOCKET	1,00
0039	SPPV01964	MOTOR CARBON	2,00

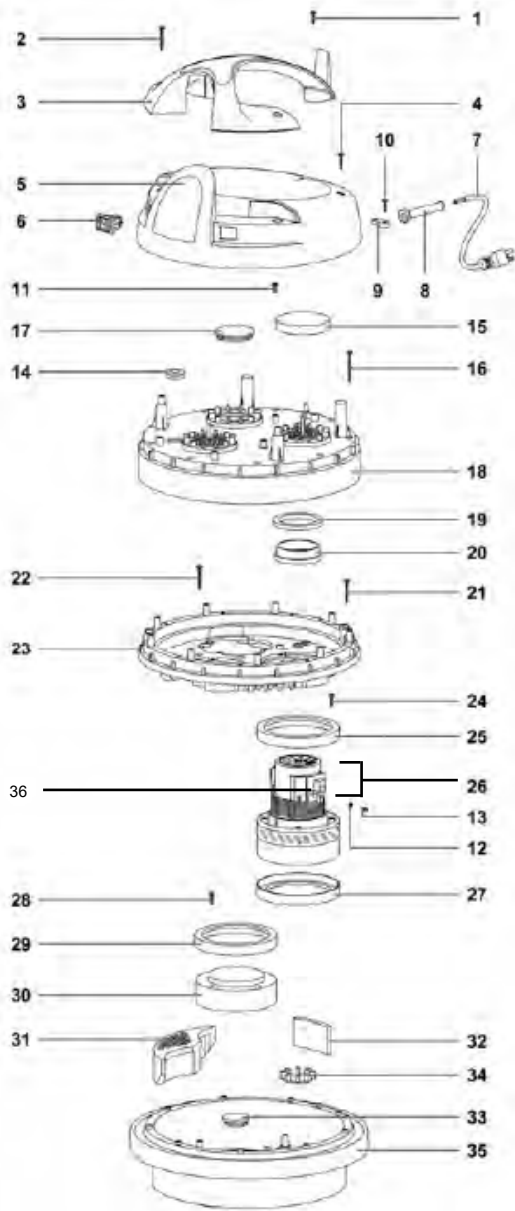


## Filter Assembly

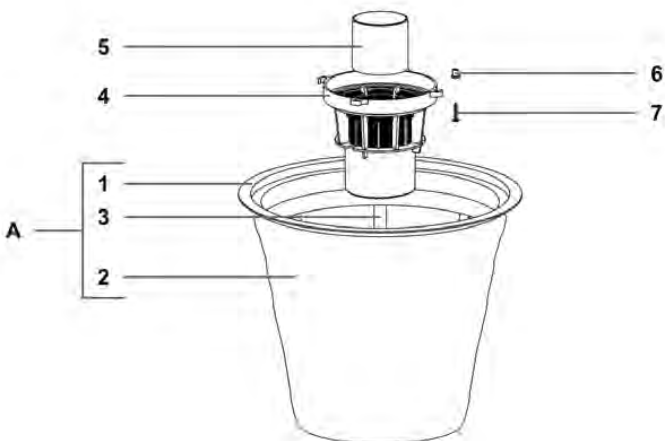
No.	Part #	Description	Qty.
A	KTRI02332	KIT RING+FILT+BASK.400 CONIC.SAN	1,00
0001	MPVR35807	FILTER RING 400	1,00
0002	FTDP00523	FILTER POLY AN4-600 CON REG H320	1,00
0003	MPVR09199	CONICAL BASKET 400	1,00
0004	MPVR40521	NET ANTIFOAM BODY HIGH	1,00
0005	RCGR40008	HIGH FLOAT 99 W/GASKET 37 SHA	1,00
0006	MPVR35796	PLASTIC SLEEVE D.8	4,00
0007	VTVT36751	SCREW PAT TMT PHL 5X25	4,00



# GC 2/90 Vacuum Motor Assembly

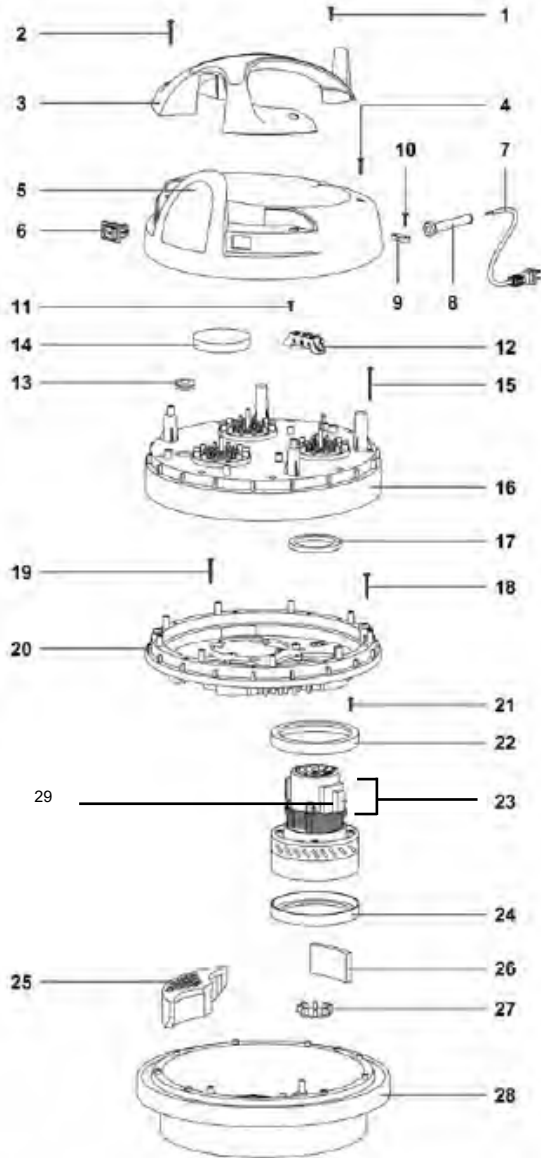


No.	Part #	Description	Qty.
*	PMQE00259	ELECTRIC KIT 600 2MOT. AUTOEST.	1,00
*	MECB01827	WIRING 50CM MOTOR POKE-IN UL	2,00
*	FSVR00127	CLAMP	3,00
0001	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0002	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	2,00
0003	MPVR11825	HANDLE TOPPER 600 VERDE IPC AU	1,00
0004	VTVT72055	SCREW PFU TMT PHL 5X25 ZN BLACK	2,00
0005	PMVR06457	COVER TOPPER 600 NE AU 2INT	1,00
0006	MECI28744	ANTISPLASH RED LIGHT SWITCHER	2,00
0007	MECB01211	CABLE E.3X14AWG SJTW MT8,5 N5	1,00
0008	KTRI03358	FAIR-LEAD LONG	1,00
0009	MPVR28690	CABLE CLAMP	1,00
0010	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0011	KTRI03436	SCREW PAT TMT PHL 5X14 ZN BLACK	2,00
0012	VTRS00393	TOOTHED WASHER M4 UNI 8842	2,00
0013	VTVT01037	SCREW TC CROSS M 4X8 UNI 7687	2,00
0014	MEVR72017	GUIDING SLIT FOR QUICK COUPLING	1,00
0015	FTDP38064	FILTER MTP/65 H=15 D.95	2,00
0016	VTVT40007	SCREW PAT TMT PHL 5X55 BLACK	9,00
0017	MPVR09575	CAP COVER SELF-EXTINGUISHING	1,00
0018	MPVR08501		1,00
0019	KTRI04227	WASHER H8 D85X65	2,00
0020	KTRI03367	RING MOTORE H=7 (15) PLAST.AUT	2,00
0021	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	9,00
0022	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	3,00
0023	MPVR09319	MOTOR-FASTENER NEV.600 BLACK S-EXT.	1,00
0024	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	8,00
0025	KTRI04216	"L" GASKET W/O HOLES H=5,5	2,00
0026	MOMO00908	MOTOR BD301 AU 800W 120/60	2,00
0027	KTRI04216	"L" GASKET W/O HOLES H=5,5	2,00
0028	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	4,00
0029	KTRI04216	"L" GASKET W/O HOLES H=5,5	1,00
0030	MPVR08575	FAKE MOTOR LOWERED AU	1,00
0031	KTRI04140	ANTINOISE TRIANGLE H=51	3,00
0032	KTRI04141	GASKET MTP/30 AU-AD 50X10X85	3,00
0033	MPVR38058	BASE CAP	1,00
0034	KTRI03379	AUTOMATIC VALVE	2,00
0035	PMBA00202		1,00
0036	SPPV01964	MOTOR CARBON	2,00

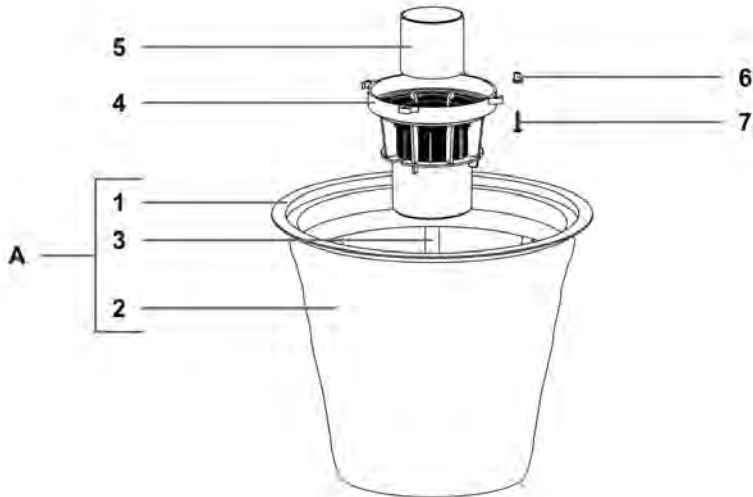


Ref. K	Part N.	Description	Quantity
A	FTDP28733	KIT RING+FILT+BASK.400 CONIC.SAN	1,00
1	MPVR35807	FILTER RING 400	1,00
2	FTDP00523	FILTER POLY AN4-600 CON REG H320	1,00
3	MPVR09199	CONICAL BASKET 400	1,00
4	MPVR40521	NET ANTIFOAM BODY HIGH	1,00
5	RCGR40008	HIGH FLOAT 99 W/GASKET 37 SHA	1,00
6	MPVR35796	PLASTIC SLEEVE D.8	4,00
7	VTVT36751	SCREW PAT TMT PHL 5X25	4,00

# GC 3/90 Vacuum Motor Assembly



No.	Part #	Description	Qty.
*	MECB01620	CONNEC.WIRES AWG-350-GRI-FF-FF	1,00
*	MECB01617	CONNECTING WIRES AWG-350-ROS-FF-FF	1,00
*	MECB01827	WIRING 50CM MOTOR POKE-IN UL	3,00
*	FSVR00127	CLAMP	3,00
0001	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0002	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	2,00
0003	MPVR11825	HANDLE TOPPER 600 VERDE IPC AU	1,00
0004	VTVT72055	SCREW PFU TMT PHL 5X25 ZN BLACK	2,00
0005	PMVR06458	COVER TOPPER 600 NE AU 3INT	1,00
0006	MECI28744	ANTISPLASH RED LIGHT SWITCHER	3,00
0007	MECB01972	CABLE 2X14AWG SJTW MT8,5 N1-15P	1,00
0008	KTRI03358	FAIR-LEAD LONG	1,00
0009	MPVR28690	CABLE CLAMP	1,00
0010	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	1,00
0011	KTRI03436	SCREW PAT TMT PHL 5X14 ZN BLACK	2,00
0012	MECB01402	CLAMPS 400-600 2P 2MOT AWG RAD	1,00
0013	MEVR72017	GUIDING SLIT FOR QUICK COUPLING	1,00
0014	FTDP38064	FILTER MTP/65 H=15 D.95	2,00
0015	VTVT40007	SCREW PAT TMT PHL 5X55 BLACK	9,00
0016	MPVR08501		1,00
0017	KTRI04227	WASHER H8 D85X65	3,00
0018	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	9,00
0019	KTRI03765	SCREW PAT TMT PHL 5X40 BLACK	3,00
0020	MPVR09319	MOTOR-FASTENER NEV.600 BLACK S-EXT.	1,00
0021	KTRI03437	SCREW PFU TMT PHL 5X20 BLACK	12,00
0022	KTRI04216	"L" GASKET W/O HOLES H=5,5	3,00
0023	MOMO00914	MOTOR BD302 500W 120 50/60	3,00
0024	KTRI04216	"L" GASKET W/O HOLES H=5,5	3,00
0025	KTRI04140	ANTINOISE TRIANGLE H=51	3,00
0026	KTRI04141	GASKET MTP/30 AU-AD 50X10X85	3,00
0027	KTRI03379	AUTOMATIC VALVE	3,00
0028	PMBA00209		1,00
0029	SPPV01964	MOTOR CARBON	2,00



# Filter Assembly

No.	Part #	Description	Qty.
A	KTRI02332	KIT RING+FILT+BASK.400 CONIC.SAN	1,00
0001	MPVR35807	FILTER RING 400	1,00
0002	FTDP00523	FILTER POLY AN4-600 CON REG H320	1,00
0003	MPVR09199	CONICAL BASKET 400	1,00
0004	MPVR40521	NET ANTIFOAM BODY HIGH	1,00
0005	RCGR40008	HIGH FLOAT 99 W/GASKET 37 SHA	1,00
0006	MPVR35796	PLASTIC SLEEVE D.8	4,00
0007	VTVT36751	SCREW PAT TMT PHL 5X25	4,00

Barrel Vac Ring  
S920751  
(Complete)



1	S87390	Latch	2
2	S81301	Rivet	4
3	S820297	Inlet, Complete	1
4	S82586	Gasket, Inlet	1
5	S80725	Screw 5 x 25	4
6	S81015	Nut M5	4
7	S820749	Gasket, Lid	1

## Warranty Policy

### **Limited Warranty**

IPC Eagle 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, IPC Eagle 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, IPC Eagle 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, IPC Eagle 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.

IPC Eagle will furnish and charge for replacement parts, including transportation, to the original owner through an IPC Eagle 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 IPC Eagle service center. Travel is covered for 90 days for battery operated equipment only.

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 IPC Eagle authorized service center, and damage in transit.

IPC Eagle 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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