# GOODWAY® DV-CM Super ChipMaster

Operating and Maintenance Instructions



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Goodway reserves the right to improve products; contact the factory for the latest configuration and uses.

### INTRODUCTION

Thank you for purchasing this Goodway vacuum. We appreciate your business and look forward to serving you in the future. As with all Goodway products, you can be assured that the finest quality components and workmanship have gone into this machine.

Please take a few minutes to read the following Operating and Maintenance Instructions. By carefully following the instructions, you will obtain years of trouble free service from this product. Please pay particular attention to the safety instructions and exercise caution when using this machine.

We are here to serve you!
For Sales call
1-800-333-7467
For Service call
1-800-370-2855
Goodway Technologies Corp.

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### SAFETY INSTRUCTIONS

### IMPORTANT – ALL MODELS

To prevent operator injury and damage to the equipment, please read and observe the following basic safety precautions:

- 1. Read all instructions before using.
- 2. If vacuum does not operate properly or has been damaged, return it to the factory for service.
- 3. Do not vacuum hot, burning or smoking material such as cigarettes, matches or hot ash.
- 4. Do not vacuum combustible liquids or use in areas where combustible liquids may be present without taking proper safety measures.
- 5. Keep objects, loose clothing, hair and body parts away from openings and moving parts.
- 6. Keep all openings free of lint, dust or anything that impedes air flow.
- 7. Be extra careful when cleaning stairs.
- 8. Use only attachments and filters recommended by Goodway.
- 9. Strict supervision is required when vacuum is operated near children.

# **ELECTRIC VACUUMS**

- 1. To avoid electrical shock, never expose vacuum to rain. Store vacuum indoors in a cool, dry area.
- 2. Unplug the power cord when servicing the vacuum, changing filters or leaving the vacuum unattended.
- 3. Turn off all controls before unplugging the power cord.
- 4. When plugging the power cord, grasp the plug not the cord.
- 5. Do not use the vacuum if cord or plug is damaged.
- 6. Do not handle the vacuum with wet hands.
- 7. Do not roll the vacuum over the power cord, pull the cord, close a door on the cord or pull the cord around sharp corners. Keep the cord away from hot surfaces.
- 8. Vacuums are supplied with a three conductor cord and a ground plug and should be used with a grounding receptacle to protect the operator from electrical shock. DO NOT remove the grounding pin. If an extension cord is used, it must be sufficiently heavy and of a three conductor type.

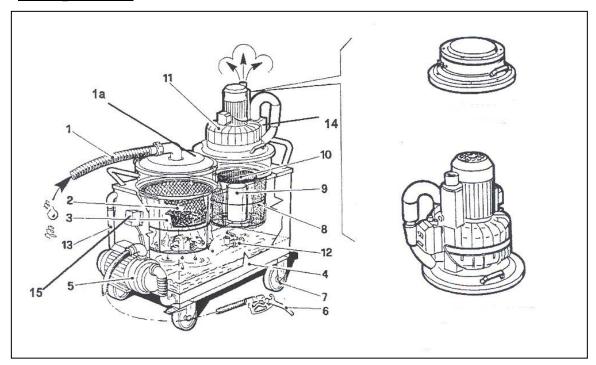
# **GROUNDING INSTRUCTIONS**

This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounded conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

*WARNING*: Improper connection of the equipment-grounding conductor can result in risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Do not operate near flammable materials such as fuels, thinners, solvents, grain dust, etc.

# **Components**



- 1) Oil proof hose
- 1a) Top lid
- 2) Chip basket 11 Gallon [Optional: 22 Gallon]
- 3) Oil Filter (polypropylene)
- 4) Tank
- 5) Electric discharge pump
- 6) Discharge hose with handgun
- 7) Polyurethane wheels with brake
- 8) Nylon filter
- 9) Floater
- 10) Fiber Filter
- 11) Suction motor
- 12) Discharge valve
- 13) Level indicator
- 14) Motor switch
- 15) Pump switch

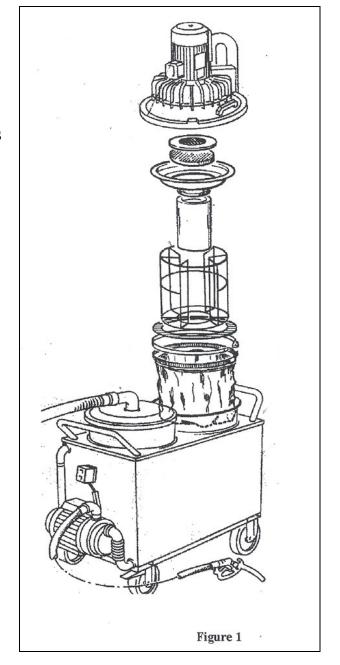
# **General Features**

# Switching on and off

The vacuum unit and the electric pump can work simultaneously, allowing for recovery filter and pump back at the same time. Independent switches (14 & 15) activate the vacuum motors and the pump.

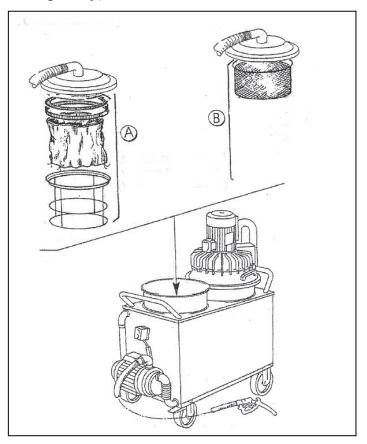
### Protection

The vacuum motor is protected by a floating device (9): when the level of the liquid rises up, it lifts the floating device which stops the suction before the liquid reaches the motor. At this point the motor keeps running, but the suction stops. A further protection is granted by the nylon filter (8) around the floating device, and by another fibre filter (10) placed above the floating device.



# **Filtering**

WARNING: Never use the chip basket together with the polypropylene filter. Always use either the chip basket alone OR the poly filter alone. (If used together, the space between the bottom of the basket and the bottom of the filter may fill too quickly).



# 1) When to use the chip basket?

The chip basket must always be used for the first filtration. It is suitable to hold bigger solids, such as metal chips.

# 2) When to use the polypropylene filter?

The polypropylene filter should be used when a finer filtration is required. It has an efficiency of 300 microns to hold finer metal splinters and dust. It should always be used for a second filtration, after a first filtration through the chip basket has been carried out. Proceed as follows:

- First filtration through the chip basket
- Pump the oil into a barrel
- Second filtration through the nylon filter
- Pump the oil back into the machine

# **Use and Maintenance**

# **Installing the Machine**

Models DV-CM4, DV-CM7.5-66, DV-CM 7.5-119: These machines can work anywhere a three-phase circuit of the proper voltage is available.

Model DV-CM: This machine can work anywhere a single phase 220 volt is available.

# **Operating Instructions**

### **First Filtration:**

- 1. Make sure the chip basket (2) is in place.
- 2. Switch on the vacuum motor(s) by activating the start/stop switch(es) (14).
- 3. During recovery, regularly check the liquid level in the level indicator (13) located on the front of the unit. When the tank is full, the floating device (9) stops the air flow. The motor(s) continue to run, but suction ends.
- 4. Switch off the vacuum motor(s).
- 5. Open the valve on the handgun (6) and activate the pump switch (15).
- 6. Pump the oil back into the machine tool or other container.
- 7. Switch the pump off when the unit is empty. **Never run pump dry.**

### **Second Filtration:**

- 1. Remove the chip basket (2) and replace it with the cage containing the polypropylene filter (3).
- 2. Repeat steps 2-7 above.

# **Working Limits**

DANGER: The pump is not suitable for dangerous or inflammable liquids.



**WARNING:** 

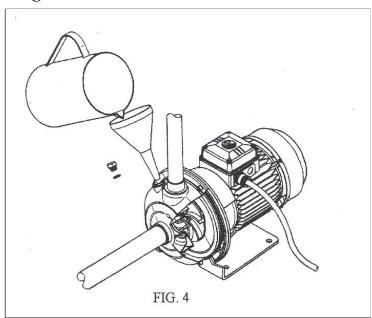
Maximum working pressure 116 PSI (8 bar)

Maximum liquid temperature: 85°F

Maximum number of starts per hour, evenly

distributed: 40

# **Priming**



WARNING: The pump must be filled with water (see figure 4) before starting. Dry running even for a short time would seriously damage the mechanical seal.

Fill both the suction pipe and the pump body with water through the fill plug near the delivery port.

Carry out this operation carefully to prevent formation of air pockets inside the suction pipe or the pump body.



### WARNING

- Frost can damage the pump if it remains full and inactive at freezing temperatures.
- The maximum noise of the electric pump when properly installed and operating within its limits does not exceed 70 dB(A).

### Maintenance

- The pump does not require any regularly scheduled maintenance.
- It may require occasional cleaning of the liquid and replacing of the worn or damaged hydraulic components.
- All maintenance operations should be carried out by skilled and qualified personnel.



**DANGER**Risk of
Electric Shock

Make sure that the multiple-pole switch is disconnected before carrying out any maintenance operations.

# **Troubleshooting**

### The Suction is Weak:

- Make sure that the hose is not clogged, punctured or torn.
- Check the level of the liquid. If the tank is full, empty it before starting again.
- Make sure that the filter is not saturated or torn.
- Check any air leak from closing hooks, screws or gaskets.

# Oil Overflowing from the lid

- Make sure that the chip basket is not full.
- Check any leak from the gaskets under the lid
- Check the connection of the rubber hose to the lid

# To replace the nylon filter, proceed as follows:

- 1) Switch the motor off
- 2) Take off the motor head
- 3) Extract the floating device
- 4) With a screwdriver, unscrew the metal ring-gasket that runs all around the filter
- 5) Extract the filter and replace it with a new one.

**WARNING:** If some dust is regularly coming out of the motor head, replace the filter.

# **Technical Data**

Description	Measure	DV-CM	DV-CM4	DV-CM 7.5-66	DV-CM 7.5-119
Voltage	Volts	230/60	230/400/60	230/400/60	230/400/60
Power	HP	4.6	4	7.5	7.5
Vacuum	(mm. H20)	(2.300)	(3.000)	(5.000)	(5.000)
	in. H20	90"	118"	176"	176"
Air Flow	(m3/h)	(600)	(300)	(300)	(300)
	CFM	353	176	176	176
Capacity	GAL	66	66	66	119
(Liquids)					
Pump Flow	(Lt/Min.)	(30)	(30)	(90)	(90)
	GPM	8	8	24	24
Capacity	GAL	11	11	11	11
(Chips)					

# **Cleaning**

### To Clean the Machine:

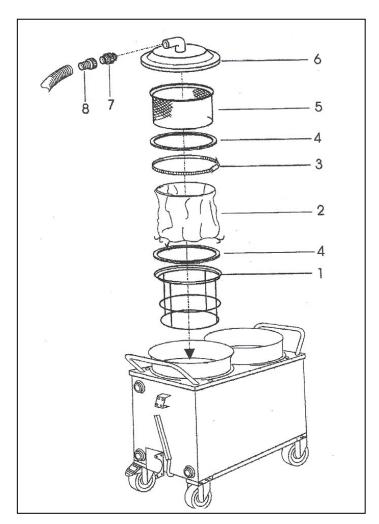
- 1) Discharge the liquid left inside the tank, through the discharge valve (12) or with the electric pump (5). To clean oily deposits inside the tank, it is also possible to unscrew the bolts that hold the whole upper lid of the machine.
- 2) Take off the front lid (1a) and clean the inside of the machine with a hot water jet. For easier cleaning, the motor head (11) and the floating device can be taken off too.
- 3) Keep the filter around the floating device (8) and the fibre filter (10) clean. Remove the motor head, take the floating device out and clean them with a hot water jet.



### WARNINGS

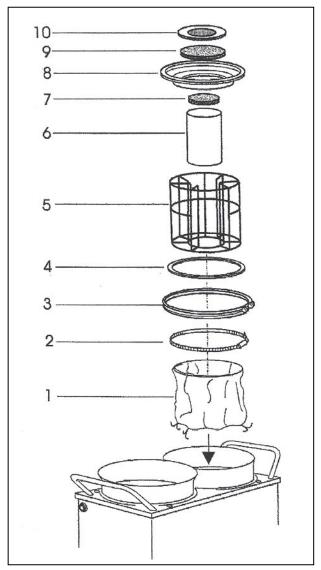
- Do not run the machine with used up or torn filters. Immediately replace the filter as soon as you notice the least tearing.
- Check regularly the filtering gasket (under front lid 1a)
- After checking, changing the filters or cleaning, replace the lids carefully.
- Always check that the wheel brake is on when running the machine.
- Check that the electric system matches the voltage indicated on the identification plate placed on the motor head. Also check that sockets are in good condition. Any maintenance or repair on the electric parts should be carried out by authorized staff.

# **Parts List** (Table 7 – Filtering System)



Ref.	Qty	Code	Description
1	1	CM-P001	Polypropylene filter cage
2	1	CM-P002	Polypropylene filter
3	1	CM-P003	Filter fastening clamp Ø500
4	2	CM-P004	Oil-proof gasket for Ø500 filter
5	1	CM-P005	Tecnoil sieve grid
6	1	CM-P006	Tecnoil Ø525 lid
7	1	CM-P007	2" PVC double screw
8	1	CM-P008	2" F?50 straight connection

# <u>Parts List</u> (Table 8 – Suction System)



Ref.	Qty	Code	Description
1	1	CM-P009	Nylon filter Wet & Dry Ø500 h=400
2	1	CM-P010	Filter fastening clamp Ø500
3	1	CM-P011	Filter holding ring Ø500
4	1	CM-P012	Oil-proof gasket for Ø500 filter
5	1	CM-P013	Filter stretching cage Wet & Dry Ø500
6	1	CM-P014	Floating device
7	1	CM-P015	Floating device basket
8	1	CM-P016	Floating device cyclone
9	1	CM-P017	Fibre filter
10	1	CM-P018	Fibre filter net