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[www.heatwagon.com](http://www.heatwagon.com)

## Installation and Maintenance Manual

Please retain this manual for future reference.

# *ChillBlast*

*Portable  
Nebulizer*



This QR Code  
can be found  
under the  
control box lid



# Installation and Maintenance Manual

## Model ChillBlast

## Portable Nebulizer

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### **WARRANTY**

All new Heat Wagon and Sure Flame heaters and fans are guaranteed against defective materials and workmanship for one (1) year from invoice date.

Warranty repairs may be made only by an authorized, trained and certified Heat Wagon dealer. Warranty repairs by other entities will not be considered. Warranty claims must include model number and serial number.

### **LIMITATIONS**

Warrant claims for service parts (wear parts) such as spark plugs, igniters, flame rods will not be allowed. Diagnostic parts such as voltage meters and pressure gauges are not warrantable.

Evidence of improper fuel usage, fuel pressures outside of manufacturer's specification, poor fuel quality, and improper electric power, misapplication or evidence of abuse may be cause for rejection of warranty claims.

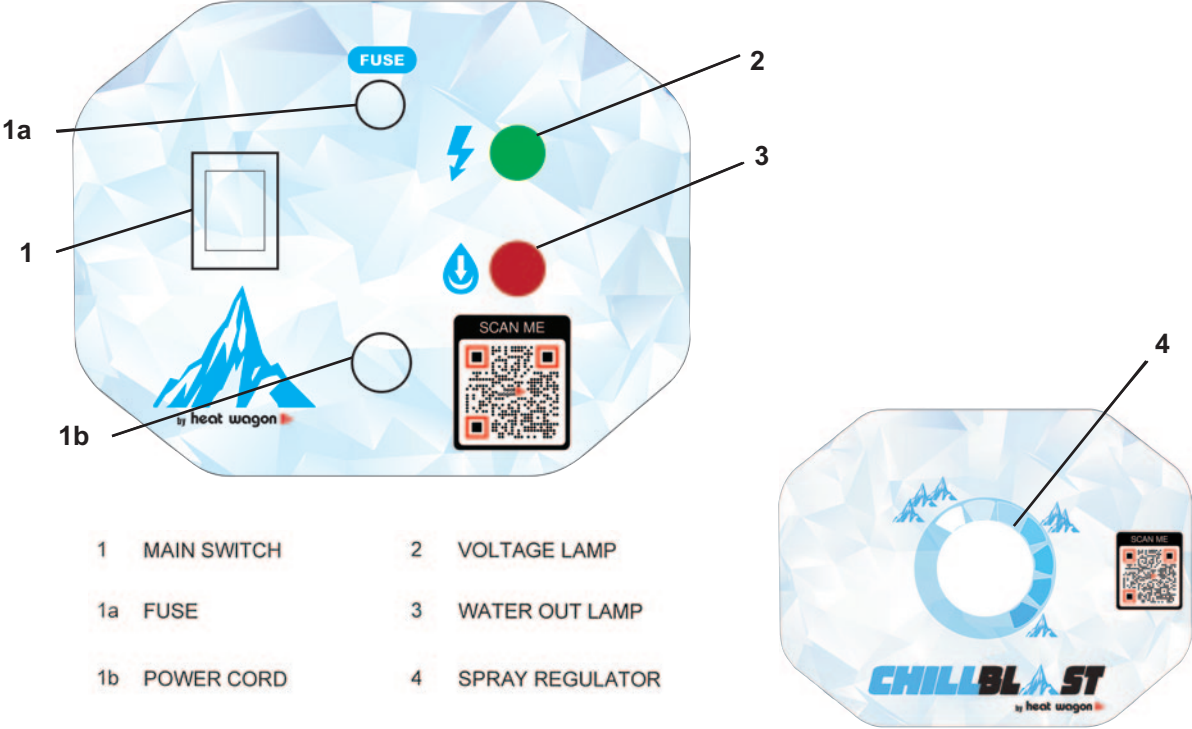
Travel time, mileage and shipping charges will not be allowed. Minor adjustments of heaters are dealers' responsibility. Defective parts must be tagged and held for possible return to the factory for 60 days from date of repair. The factory will provide a return goods authorization, (RGA) for defective parts to be returned.

No warranty will be allowed for parts not purchased from Heat Wagon.



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CONTROL BOARD



TECHNICAL SPECIFICATION			ChillBlast
Air flow rate			471 CFM
Range			20 ft.
Power supply	Phase		1
	Voltage		120 V
	Frequency		60 Hz
Tank capacity			11.36 gal.
Electric current			2 Amps
Total power consumption			380 Watts
Noise level at 1 m			65@ 3 ft.
Dimensions	L x W x H		2.69' x 1.76' x 3.20'
Weight			71 lbs.

## IMPORTANT

**Before using the nebulizer, carefully read all of the instructions and follow them scrupulously. The manufacturer cannot be held responsible for damage to persons and/or property caused by improper use of the equipment. This instruction manual is an integral part of the equipment and must therefore be stored carefully and passed on with the unit in the event of a change of ownership.**

### DESCRIPTION

These portable professional nebulizers are intended solely for use as adiabatic cooler-humidifiers.

Air is drawn in by a fan, humidified as it passes over a special rotating element, and finally returned to the room being treated. They are built on a base composed of a shockproof polyethylene water tank fit with practical wheels and ergonomic handle for easy transport.

### GENERAL ADVICE

Installation, setting and use of the machine must be performed in compliance with current regulations and laws related to use of the machine.

General guidelines:

- follow the instructions in this booklet very carefully;
- do not place the machine immediately under a fixed wall socket;
- the machine must be placed on a stable surface to prevent it from overturning;
- easily flammable materials should not be placed near the machine;
- the machine must not be covered with cloths or similar items;

#### Warning



**DO NOT COVER THE NEBULIZER, IT MAY OVERHEAT**

- carefully check the nebulizer before starting it up and regularly monitor it during use. Keep it out of the reach of children and animals;
- After use, make sure the disconnecting switch is off.

#### Warning



**This unit is not intended for use by persons with reduced physical, sensory or mental abilities, or by those lacking the necessary expertise and knowledge, except under the supervision of or when trained in its use by a person responsible for their safety.**

### INSTALLATION INSTRUCTIONS

#### Warning



**The installation must be performed by authorised personnel and in compliance with current safety regulations.**

#### PRELIMINARY OPERATIONS

Proper nebulizer function requires checking that the:

- Operating temperature is between 1°C and 40°C
- Water used to run the machine is drinking-grade with low fixed residue or has been properly treated. Water quality affects maintenance frequency and proper humidifier function.

#### POWER CONNECTIONS

##### Warning



- The nebulizer power line must be earthed and fitted with a residual current circuit breaker.
- The nebulizer must be plugged into a socket fit with a switch disconnector.

Before plugging the nebulizer into the electrical power supply and switching it on, check that the power supply specifications match those stated on the dataplate.

#### POSITIONING

The humidifier/cooler may be installed so that it delivers humidified air in either horizontal or vertical directions.

The unit must be positioned respecting the minimum recommended distances that allow the machine to function properly and enables maintenance operations to be performed.

However, we recommend choosing the best position for humidification/cooling which depends on how the room is used.

To prevent the mist from condensing on the walls, maintain a distance of at least 1m from the ceiling and surrounding walls, while the distance from the facing wall should be at least 10m

### OPERATING INSTRUCTIONS

#### PRELIMINARY OPERATIONS

Before operating the humidifier, check that:

- The cock is installed under the tank
- All electrical connections are made as indicated in the instructions provided herein;
- The humidifier is free and clean;
- The regulation water cock is open;

#### BEFORE STARTING

- Check that the air flows in the right direction;
- Make certain that the power cord is properly positioned and is not pinched or pulled taut;
- Make certain that there are no water drips and/or leaks
- Open the water supply cock and check the loading circuit for leaks;

#### Warning



**The humidifier disc can turn at up to 2800 rpm.**

Use the flow regulator to limit the water flow rate until nebulization is achieved without droplet carry-over from the rotating disc.

#### Warning



- Too much water increases droplet size.
- The pump must not run without water
- The temperature of the liquids used must not exceed 35°C

#### START-UP

Press key (1) to start the machine: the nebulizer starts automatically: the pump sets the water in circulation and brings it to the rotating disk which, turning at 2,820 rpm, nebulizes the water brought to the blades.

#### ADJUSTMENT

The quantity of nebulized water can be varied using control valve (4) to adjust the ball valve regulating the flow of water injected onto the rotating disc.

The machine can nebulize from 2 to 24 lt/h (the amount of water nebulized affects mist quality).

#### Warning



**IF CONTROL VALVE 4 IS COMPLETELY CLOSED, THE WATER PUMP WILL CUT OUT. TO RESTART IT, CONTROL VALVE 4 NEEDS TO BE OPENED SLIGHTLY.**

#### DRAINING THE WATER

The tank has a drain plug so that it can be thoroughly emptied when the operating cycle has been completed.

#### Warning



**To prevent the formation and growth of bacteria and other pathogenic microorganisms such as salmonella, do not leave water in the tank for extended periods of time.**

**Therefore all water remaining inside must be drained at least once a week by opening the cock at the bottom of the tank.**

## MAINTENANCE

#### Warning



**Before performing any maintenance:**

- stop the humidifier;
- switch off the power supply by means of the disconnecter on the electrical panel;
- wait until the humidifier has cooled down.

For the humidifier to operate efficiently, it must be cleaned regularly. An accumulation of dust and dirt can reduce performance.

In addition, the amount of water reaching the centrifuge must be periodically checked to ensure that it is correct; if necessary, adjust the flow regulator. Keep discs, tank and internal components clean; do not allow dirt to accumulate on the lid.

#### CLEANING THE DISC

- Keep the disc clean to prevent the formation of scale or an accumulation of dirt that could increase vibrations or produce a coarse spray.
- To clean the rotating disc, simply use a soft cloth dampened with a non-toxic, solvent-free cleaner, wiping carefully without applying excessive pressure.
- Do not use solvents.
- The fixed disc should be cleaned with a small, stiff-bristled brush, carefully cleaning the teeth to prevent damage.

- Any scale can be removed with muriatic acid diluted with water.

#### CLEANING THE TANK

- Clean the tank periodically.
- To gain access, loosen the two screws on the cover and pull gently on the hook.
- Once these steps have been completed, the inside of the tank can be cleaned with a cloth or sponge, gently rubbing down the walls. Do not use solvents.

#### OPERATIONS AT BEGINNING/END OF SEASON


Operations at beginning/end of season:

- empty the tank completely by opening the cock at the bottom,
- wash the inside of the tank with a 5% aqueous solution of sodium hypochlorite (bleach),
- rinse thoroughly with clean water,
- finally empty out the tank to remove all solution and dirt residues,
- at the end of the season, leave the tank empty.
- at the beginning of the season, before filling the tank with clean water, rinse it out with clean water at least once to ensure there has been no build-up of dirt or material that may be hazardous to one's health..

## DISPOSAL

At the end of its working life, this machine is to be scrapped and disposed of by handing it over to the local separate waste collection system pursuant to and in scrupulous compliance with current legislation.

Before scrapping, check the machine's serial number label. If the

label bears this symbol , this means that disposal is regulated by Legislative Decree no. 151 of 25/07/2005 and directive 2003/96/EC on Waste Electrical and Electronic Equipment (WEEE).

You should therefore become apprised of the local waste collection system for electrical and electronic products and comply with its requirements.

Improperly disposing of this product as normal municipal waste may result in serious harm to the environment and human health and may be subject to penalties from local authorities.

## TROUBLESHOOTING

FAULT	CAUSE	REMEDY
<ul style="list-style-type: none"> <li>The machine does not start.</li> </ul>	<ul style="list-style-type: none"> <li>The power supply is not plugged in.</li> </ul>	<ul style="list-style-type: none"> <li>Check the electrical connection or power supply operation.</li> </ul>
<ul style="list-style-type: none"> <li>The rotating disc does not turn but water is recirculated by the pump.</li> </ul>	<ul style="list-style-type: none"> <li>Motor is not powered.</li> </ul>	<ul style="list-style-type: none"> <li>Check power supply line to the motor.</li> </ul>
	<ul style="list-style-type: none"> <li>The motor has failed.</li> </ul>	<ul style="list-style-type: none"> <li>Have the motor replaced by an authorized service technician.</li> </ul>
<ul style="list-style-type: none"> <li>The rotating disc turns but water is not sprayed.</li> </ul>	<ul style="list-style-type: none"> <li>Pump is not powered.</li> </ul>	<ul style="list-style-type: none"> <li>Check power supply line to pump.</li> </ul>
	<ul style="list-style-type: none"> <li>The water supply circuit is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>Check the water supply pipe and spray control valve.</li> </ul>
	<ul style="list-style-type: none"> <li>The pump is plugged.</li> </ul>	<ul style="list-style-type: none"> <li>Clean tank making certain that the pump is thoroughly cleaned.</li> </ul>
	<ul style="list-style-type: none"> <li>The pump is full of air.</li> </ul>	<ul style="list-style-type: none"> <li>Vent the hydraulic circuit by disconnecting the 3/8" hose from the control valve.</li> <li>Clean the pump thoroughly.</li> </ul>
	<ul style="list-style-type: none"> <li>The pump has failed.</li> </ul>	<ul style="list-style-type: none"> <li>Have the pump replaced by an authorized service technician.</li> </ul>
	<ul style="list-style-type: none"> <li>Control valve 4 is completely closed or plugged</li> </ul>	<ul style="list-style-type: none"> <li>Open the valve or, if necessary, clean it out</li> </ul>
<ul style="list-style-type: none"> <li>Nebulization spray is coarse.</li> </ul>	<ul style="list-style-type: none"> <li>The fixed disk is fouled.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the fixed disk.</li> </ul>
	<ul style="list-style-type: none"> <li>The rotating disc is too far from the fixed disk.</li> </ul>	<ul style="list-style-type: none"> <li>Make certain that the distance between fixed and rotating discs is about 4mm; add/remove shims to adjust the distance.</li> </ul>
	<ul style="list-style-type: none"> <li>Nozzle is not positioned correctly</li> </ul>	<ul style="list-style-type: none"> <li>Check nozzle position.</li> </ul>
<ul style="list-style-type: none"> <li>The machine vibrates.</li> </ul>	<ul style="list-style-type: none"> <li>The rotating disc is broken.</li> </ul>	<ul style="list-style-type: none"> <li>Have the rotating disc replaced by an authorized service technician.</li> </ul>
	<ul style="list-style-type: none"> <li>The motor has failed.</li> </ul>	<ul style="list-style-type: none"> <li>Have the motor replaced by an authorized service technician.</li> </ul>
	<ul style="list-style-type: none"> <li>The fan is broken.</li> </ul>	<ul style="list-style-type: none"> <li>Have the fan replaced by an authorized service technician.</li> </ul>



## OPERATING DIAGRAM

- 5 AIR OUTLET VENT
- 6 HANDLE
- 7 INTAKE VENT
- 8 FAN
- 9 ELECTRIC MOTOR
- 10 CENTRIFUGAL ATOMIZER

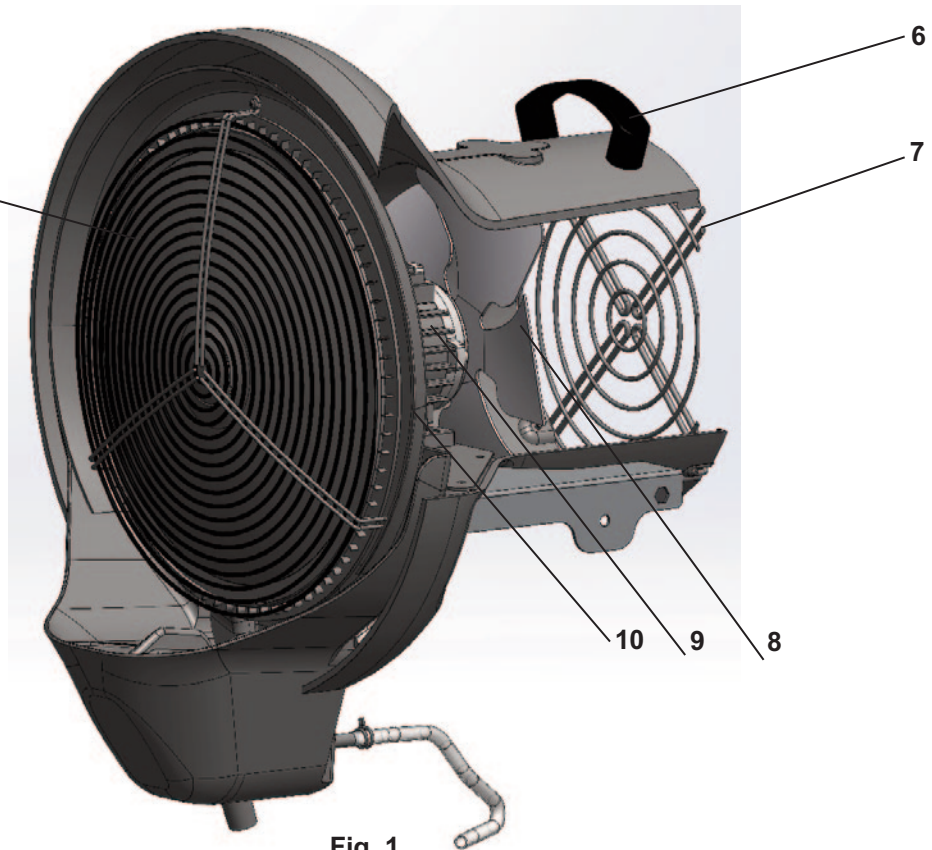
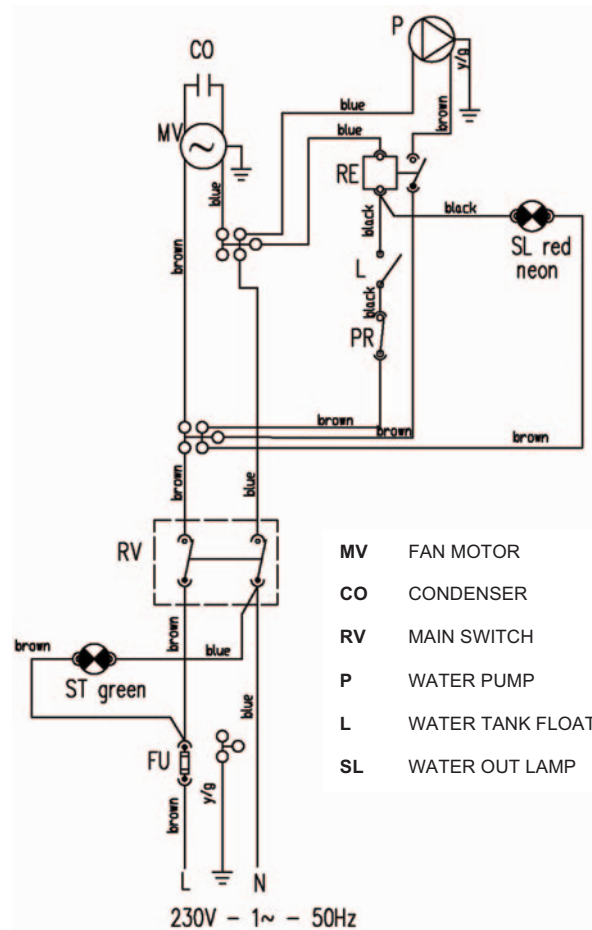


Fig. 1

## WIRING DIAGRAM



- MV FAN MOTOR
- CO CONDENSER
- RV MAIN SWITCH
- P WATER PUMP
- L WATER TANK FLOAT
- SL WATER OUT LAMP

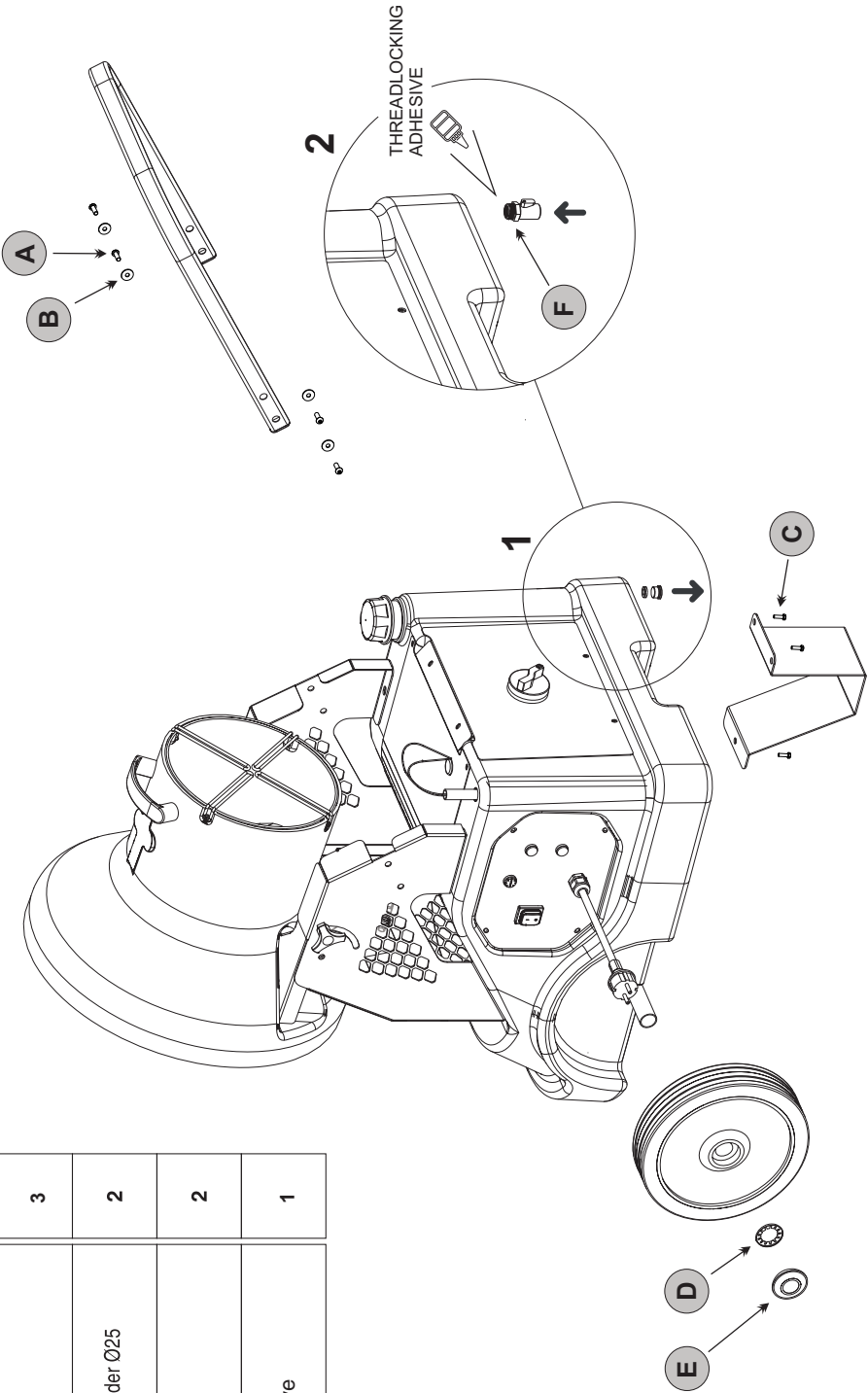
- ST VOLTAGE LAMP
- RE RELAY
- PR WATER PRESSURE SWITCH
- FU FUSE



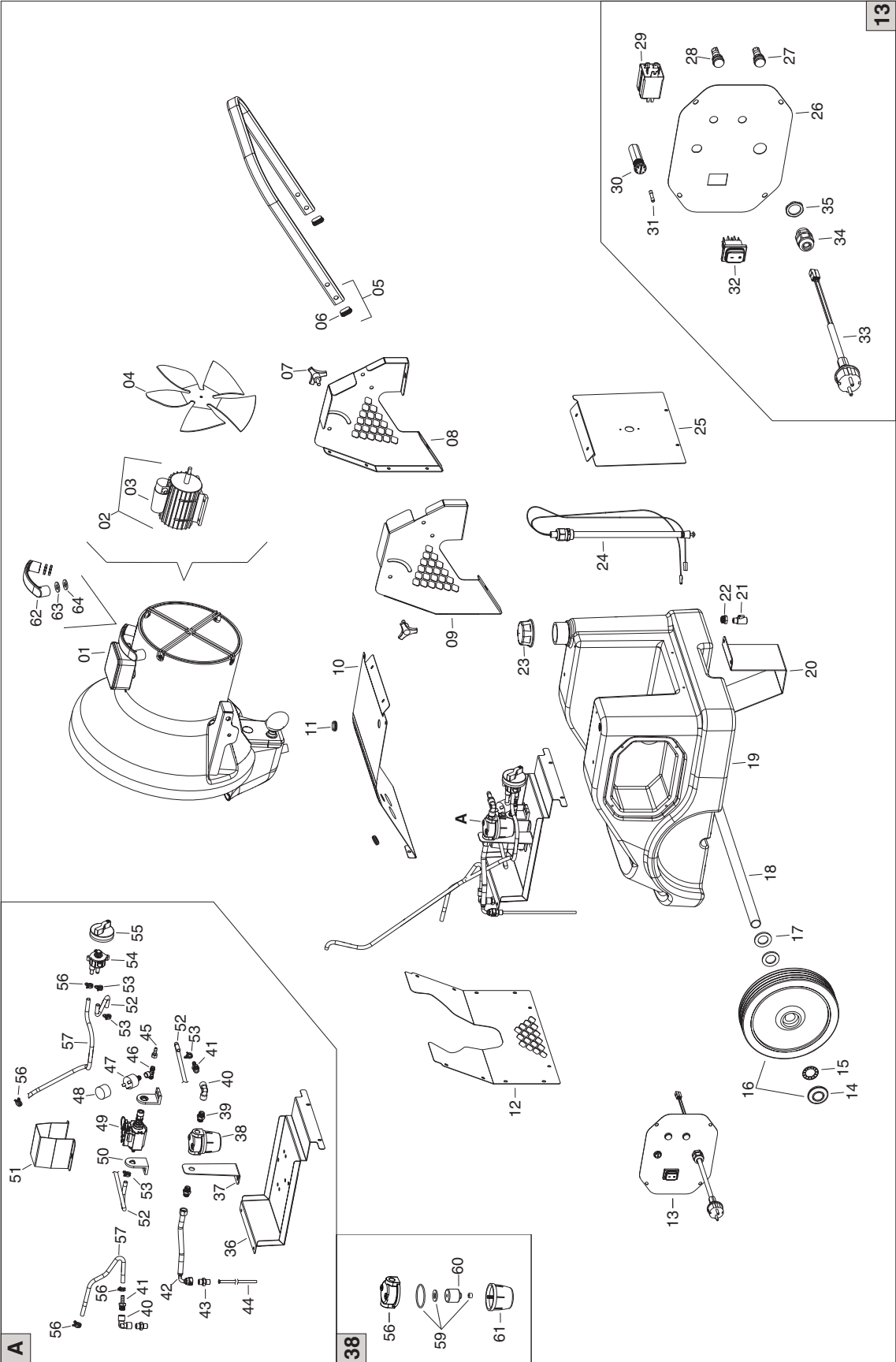
HARDWARE DIAGRAM

	N°
A	4
B	4
C	3
D	2
E	2
F	1

TBEI M8X25	
Ø8xØ17x1,5	
TE M8x16	
Metal wheel holder Ø25	
Plastic plug	
ON-OFF valve	



PARTS BREAKDOWN



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A

## PARTS BREAKDOWN

POS	P/N	LEGEND/LEGENDA	DESCRIPTION
01	G11107-9010	-	Nebulizer
02	E15027	250 W 120 V / 60 Hz	Motor
03	E15027-1	-	Capacitor
04	T10312	Ø 254 - 19°	Fan
05	P20304-9005	-	Handle
06	C30361	15x30	Pipe cap
07	C10714	M8x20-3L	Handwheel
08	G11094-9010	-	Panel
09	G11095-9010	-	Panel
10	G11096-9010	-	Panel
11	C30323	Ø20 mm	Cable protection
12	G11097-9010	-	Panel
13	G00407-9010	-	El. control box
14	C10513-N	Ø 200 - 250	Black wheel cover
15	M20204	Ø 25	Elastic washer
16	C10504	Ø 250 - Ø 26	Wheel
18	G11066-9005	Ø 25	Wheel axle
19	P50150-10	43 l	Fuel tank
20	G11065-9005	-	Support
21	I20226	M6x1,5M - 1/4"F	Fitting
22	I20825	-	ON-OFF valve
23	C30383	Ø 51,5	Tank cap
24	G11104	-	Level control
25	G11098-9010	-	Panel
26	G11099-9010	-	Panel
27	E11033	230V	Lamp
28	E11036	250V	Lamp
29	E11125	65.31 - 120V	Relay
30	E20513	6 x 32	Fuse holder
31	E10323	6x30 - 16A - T	Fuse
32	E10110-1-P	0 - I	Switch
33	E30470-10	14 AWG x 3	Power cord
34	E20950	PG 13,5	Cable fastener nut
35	E20949	PG 13,5	Cable fastener
36	G11100-9010	-	Pump flange
37	G11101-9010	-	Stirrup
38	I30415-1	500 mm	Water suction filter
39	I20104	1/4"M - 1/4"M	Iron fitting
40	I20309	1/4" F - 1/4" F	Fitting
41	I31126	1/4"M - D8	Brass hose connection
42	I40365	L = 210mm 1/4" FF 90°	Hose
43	I30737	1/4" M - M12x1,75 M	Brass fitting
44	I30696	L = 220mm	Suction pipe
45	B.CMMP00044	1/8"F	Hose connection
46	I30122	1/8"M - 1/8"F - 1/8"M	Fitting
47	E50457	NS2 - 50Pa	Pressure switch
48	E20420	Ø35	Capacitor cover
49	G11105-110	-	Solenoid pump
50	I10601-1	-	Pump support bracket
51	G11102-9010	-	Isolation
52	I40321	Ø6x9 (L=1 m)	Silicone pipe
53	C30735	Ø9,80 - 10,4	Clip
54	B.KTSP00021	-	Detergent cock
55	B.CMMP00110	-	Black plastic knob
56	C30736	-	Clip
57	I40366	Ø7x10 (L=1 m)	Hose
58	T20205-2	1/4"FF	Filter cover
59	T20234	GIULIANI ANELLO	Filter seal kit
60	I30416	-	Filter cartridge
61	I30417	-	Filter container
62	001.340	-	Handle
63	003.353	6 x 24	Washer
64	003.077	6 x 24	Washer
65	I20301	1/4"MF / 90°	Fitting



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