



## **WET DUST COLLECTOR**

# **OPERATION & PARTS MANUAL**

### **CAUTION**

THIS IS VERY DANGEROUS MACHINE.

NEVER PLACE HANDS OR ANY PART OF BODY

INTO THE MACHINE. BODILY INJURY COULD OCCUR.

NEVER OPERATE THE MACHINE WITHOUT PROPER  
EYES & EARS AND BODY PROTECTION.

Model # WDC-2100

CFM: 2,100 CFM

STAINLESS STEEL CONSTRUCTION

MAIN MOTOR: 5 HP, 220V OR 440V, 3PHASE

## **A. SET UP & INSTALLATION**

1. CONNECT THE DUCTING BETWEEN THE SANDER AND WET DUST COLLECTOR
2. MAKE SURE THE POWER SUPPLY 220V OR 440V
3. FILL UP WATER AT  $\frac{3}{4}$  FULL OF TANK AND ALWAYS HOOK UP A FRESH WATER SUPPLY TO THE DUST COLLECTOR TO ENSURE BEST DUST COLLECTOR PERFORMANCE.
4. KEEP THE TOP COVER CLOSED SECURELY BEFORE OPERATION
5. THE MACHINE OPERATES THE MOST EFFICIENTLY WHEN IT OPERATES NO MORE THAN 10 FEET LONG FROM THE DUST COLLECTOR TO THE SANDER.
6. DO NOT INSTALL EXHAUST DUCTING TO THE EXHAUST HOOD OF THE MACHINE.
7. ALWAYS SHUT DOWN THE POWER SUPPLY BEFORE SERVICING THE MACHINE, MOTOR AND IMPELLER.

## **B. MAINTENANCE**

1. WHEN THE MACHINE WILL NOT BE USED FOR EXTENDED PERIODS, THE WATER INSIDE THE TANK MAY DEVELOP AN ODOR. WE SUGGESTION TO REMOVE THE WATER AND CLEAN THE MACHINE.
2. IF THE MACHINE IS USED FOR 4-8 HOURS A DAY, NEED TO INSPECT THE REAR OUTLET ON THE DUST COLLECTOR EVERY TWO WEEKS. AND ALSO CLEAN INSIDE THE DUST COLLECTOR EVERY MONTH.
3. USE SHOVEL TO CLEAN THE DUST PASTE IN THE WATER TANK FREQUENTLY TO GET THE MACHINE IN HIGHEST OPERATING PERFORMANCE AND CHECK WATER LEVEL DAILY.

## **C. APPLICATIONS**

THIS DUST COLLECTOR IS USED FOR SANDING AND DEBURRING MACHINES FOR METAL, SUCH AS ALUMINUM, TITANIUM, COPPER, ALLOY STEEL, MILD STEEL, STAINLESS STEEL. AND ALSO THIS DUST COLLECTOR IS USED FOR PLASMA TABLES, GRINDERS, BLASTING MACHINES, POLISHING MACHINES, ETC.

#### **D. ALL CUSTOMERS NEED TO DO:**

1. DRAIN BALL VALVE
2. WATER HOSE
3. INSTALL THE DUCTING
4. FOUNDATION FOR SECURING THE MACHINE ON THE FLOOR
5. MEET ALL CODES AND REGULATIONS WITH FEDERAL AND STATE OR LOCAL CITY
6. WIRE UP THE MACHINE WITH THE PROPER CONNECTIONS TO THE MAIN ON/OFF STARTER.
7. MAKE SURE THE MOTOR ROTATE CLOCKWISE PROPERLLY. OTHERWISE, NEED TO INTERCHANGE ANY TWO HOT WIRES TO CHANGE THE MOTOR ROTATION.  
  
IF FAILURE, THE MACHINE WILL REDUCE VACUUM PERFORMANCE LEVEL.  
  
BACKWARD ROTATION WILL OVERLOAD THE MOTOR.
8. FLEXIBLE ELECTRICAL CONDUIT MUST BE USED TO WIRE THE MOTOR STARTER.
9. MAKE SURE THE INPUT POWER VOLTAGE VARIATIONS OF + OR – 10% FROM THE NAME PLATE VALUE ON THE MACHINE. THE SUPPLY POWER VOLTAGE MUST BE WITHIN THE LIMIT OF THE RANGE.

## **E. CAUTION:**

1. NEVER ATTEMPT TO REMOVE MAINTENANCE DOOR AND TOP COVER WHILE THE MACHINE IS UNDER POWER.
2. KEEP THE CORRECT WATER LEVEL FOR EFFICIENT PERFORMANCE LEVEL, AND CHECK WATER LEVEL DAILY.
3. IN COLD WEATHER, MAKE SURE THE WATER IS NOT FROZEN
4. DO THOROUGH MACHINE CLEANING FREQUENTLY

## **F. TROUBLESHOOTING:**

**1. PROBLEM:** DUST DISCHARGE FROM THE BLOWER HOOD.

### ***SOLUTIONS:***

- UNSUITABLE APPLICATIONS. DUST DOES NOT WET OR FLOATS, SUBMICRON PARTICLES OF DUST OR SMOKE.
- WATER LEVEL IS TOO LOW
- SLUDGE BUILD-UP IN SUMP CAUSES INSUFFICIENT WATER VOLUME. NEED TO FOLLOW THE MAINTENANCE AND CLEANING SCHEDULES, OR THE

DUST COLLECTOR IS TOO SMALL TO HANDLE HIGH VOLUME OF DUST.

- WATER IS FOAMING, CAUSING CARRY-OVER OF SLUDGE INTO BLOWER HOUSING. NEED TO CLEAN SUMP AND DRAIN WATER, THEN FILL SUMP WITH CLEAN WATER.

**2. PROBLEM:** WATER DISCHARGE FROM THE BLOWER HOOD

**SOLUTIONS:**

- WATER IS TOO LOW. HIGHER VELOCITY OF AIR IS CARRYING WATER VAPOR THRU THE SYTEM.
- SLUDGE BUILD-UP IN SUMP CAUSES INSUFFICIENT WATER VOLUME.
- BAFFLES REQUIRE CLEANING, ESPECIALLY THE TOP BAFFLE.
- WATER IS FOAMING, CAUSING CARRY-OVER OF SLUDGE INTO BLOWER HOUSING. NEED TO CLEAN SUMP AND DRAIN WATER, THEN FILL SUMP WITH CLEAN WATER.

**3. PROBLEM:** INSUFFICIENT VACUUM AT DUST SOURCE.

**SOLUTIONS:**

- FAN RUNS BACKWORDS. CHECK THE MOTOR

ROTATION DIRECTION.

- WATER LEVEL IS TOO HIGH, THAT CREATES ADDITIONAL STATIC PRESSURE ON THE SYSTEM,WHICH RESULTS IN REDUCED AIR VOLUME THRU THE SYSTEM.
- DUST COLLECTOR IS TOO SMALL FOR THE DUST SOURCE AND PLUMBING.
- BLOCKAGE IN THE SYSTEM. CHECK DUCTING AND INTAKE PLATE.

**4. PROBLEM:** OSCILLATION OF THE WATER LEVEL

( SURGING )

**SOLUTION:**

- WATER LEVEL IS TOO HIGH. REDUCE THE WATER VOLUME.

**5. PROBLEM:** ODOR

**SOLUTION:**

- FOUL WATER OR DECAYING POCKETS OF DUST.  
THOROUGHLY CLEAN THE MACHINE, REPLACE WATER AND ABOVE THE WATER LEVEL.

<b>Part #</b>	<b>Desc.</b>	<b>Size</b>	<b>Q'ty</b>
1	Shovel		1
2	screw	M6	8
3	flat washer	6	16
4	Hexagon head screws	6	8
5	lock	SM802	1
6	cover		1
7	front door		1
8	glass plate		1
9	plate		1
10	body		1
11	screw	M10	8
12	spring washer	10	16
13	washer	10	16
14	connecting screw rod		4
15	Six hexagon bolt	M10X40	4
16	spring washer	10	8
17	flat washer	10	8
18	Motor connecting frame		1
19	motor		1
20	screw	M10	4
21	Tension sleeve	45	1
22	impeller		1
23	gland		1
24	Six hexagon bolt	M8X16	1
25	key	B10X20	1
26	Hexagon head screws	M8X30	3
27	Sound-absorbing cotton		1
28	connecting sleeve		1
29	switch		1
30	Water tank cover		1
31	Tank inlet valve	400A	1
32	connector	1"-1"	1
33	water tank		1
34	flat washer	6	2
35	spring washer	6	2
36	Six hexagon bolt	M6X20	2
37	connector		1
38	hoop	∅ 2154	1
39	elbow		3
40	conneting pipe		2
41	seals		7
42	conneting pipe		1
43	screw	M6	56
44	flat washer	6	112
45	Hexagon socket head cap screws	M6X20	56



