



TMA-1000

Vacuum Tumbling Machine

Operation Manual

Version 6.9.1

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1. INSTALLATION

Please check the electric power listed on the vacuum pump and install the vacuum pump correctly,
ground line must on the floor.

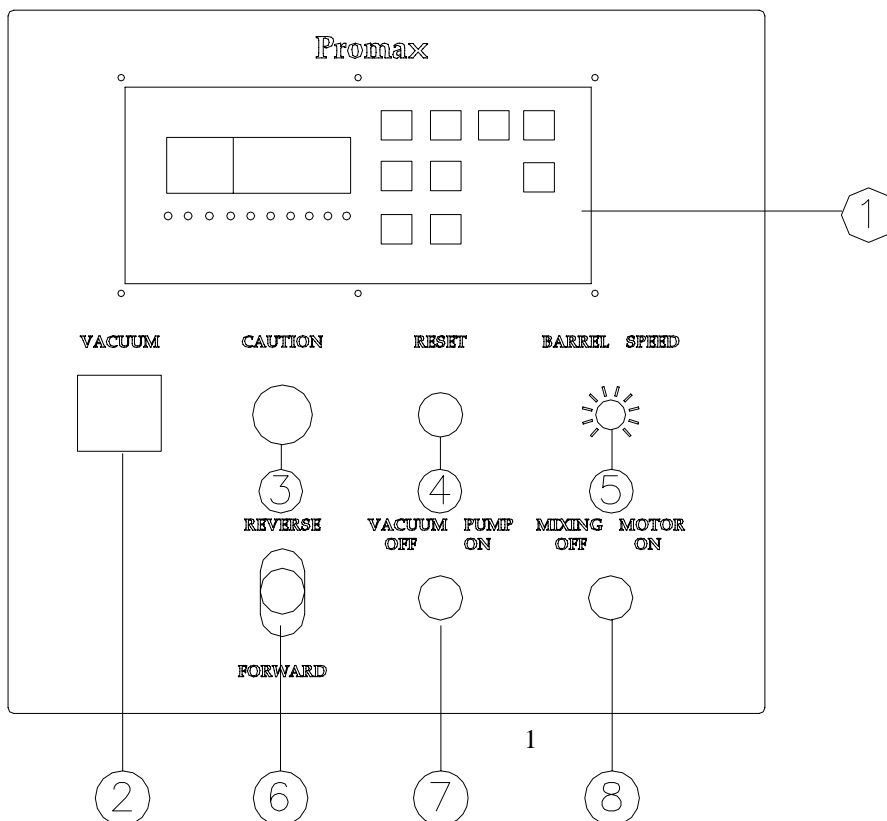
2. MAINTENANCE

- A. To ensure vacuum pump works smoothly suggest change the vacuum oil every 500 working hours or every a half year.
- B. Check water filter bottle everyday, as soon as the water over a half of the bottle please cleans it.

3. FUNCTIONS AND OPERATIONS

- 1 LED control panel
- 2 Vacuum
- 3 Caution
- 4 Reset
- 5 Barrel speed
- 6 Forward/Reverse switch
- 7 Vacuum pump ON/OFF switch
- 8 Mixing motor ON/OFF switch

Cleaning. The tumbler inside must be cleaned everyday after working hours.



4. OPERATION

PV-03 CONTROL UNIT MANUAL



1. When power on, STB LED light will be on. Wait for 2 seconds; you will be in the operation display.
2. Press “SHIFT” button , you can choose “Mix Time”, “Rest Time”, and “Cycle” , but you just can read “Total Time”, no data input necessary. Because “Total Time=Cycle x (Mix Time + Rest Time).”
3. “Mix Time” and “Rest Time” can input with Hour and Min. If the numbers on the display without “Dot” (On the lower right hand side of display), this means you input the “MINUTES”. If you want to put HOUR, please press the “HR/MIN” button to switch between HOUR and MINUTES display. When the numbers on the display with “Dot”, this means you are inputting the HOUR. °

For example:

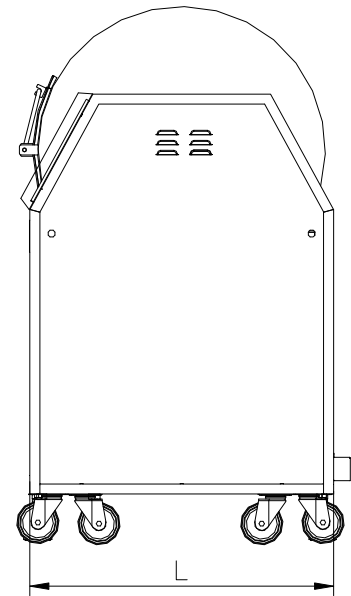
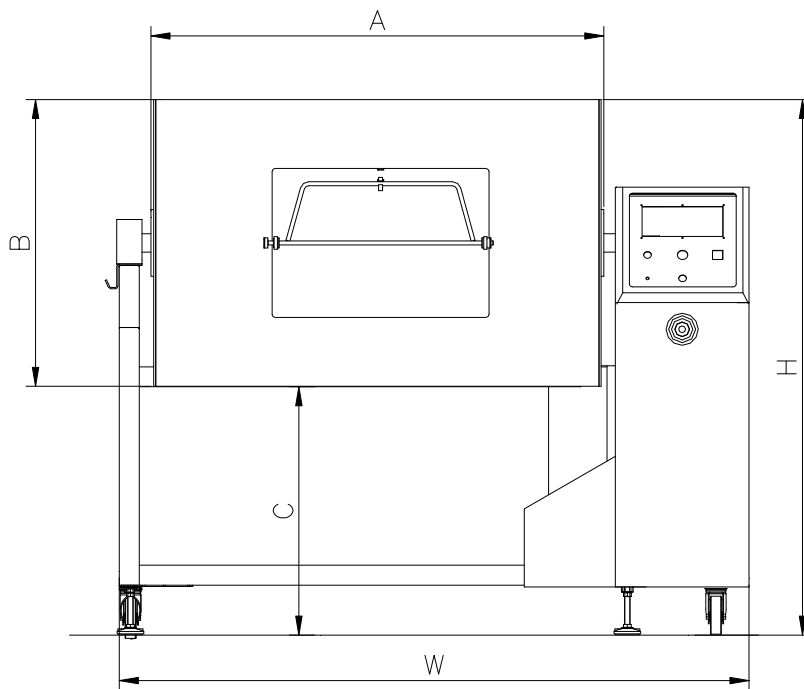
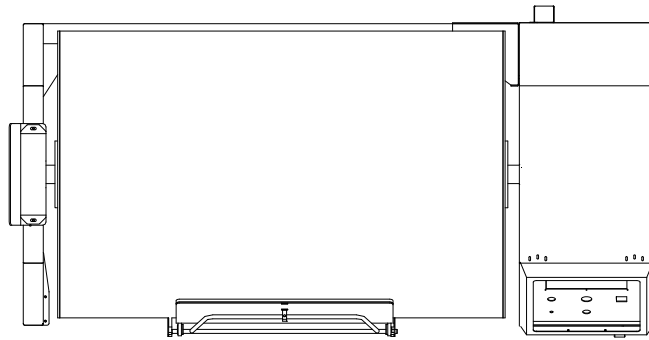
In program#1, you plan to input 1hr and 20 min mixing time in the control panel. The way to do:
Shift the Led light on the mixing time

Make the display with “Dot” on the lower right hand side of display. This means you are in the Hour input.

1. Use + button to add 1
2. Press the hr/min button one time switching to MINUTE display. Use + button to add 20 on
On the program#1, having mix time with 1hr and 20 min.
3. Use ▲ and ▼ button to switch the PROGRAM. There are 20 programs memory for saving data. Press + or -button to adjust the value and use the shift button to select the mixing time, rest time and cycle.
4. To activate the tumbler, please press START/PAUSE button once. If you want to stop the operation, you can press STOP CYCLE button. If you want to pause the cycle, please press START/PAUSE button during the operation. If you want to restart the operation, please press the START/PAUSE button again.
5. During the operation, presses HR/MIN, you can check the remaining time for the operation.
6. If the single digit has “dot” on, the number means how many HOURS left. If the single digit has NO “dot”, the number means how many MINTUTES left. To know the total time left, you need to check the Hours and Minutes.

5. MACHINE SPECIFICATION

Model	W	L	H	A	B	C	Capacity
TMA-1000	1940(76")	940(37")	1610(63")	1360(54")	∅860(34")	765(30")	402Kg



6.MACHINE OPERATION EXPLAIN.

Check the right power source with the name plate of the machine. Plug in the power and ready to operate the machine.

Turn on main power switch and set the value on control panel. After finish all of the setting push down the safety bar and press “Start/Pause” button to start the function. Safety function will be effective and machine will stop at the same time while user pull up the safety bar or gear motor box during working process.

After vacuum tumbling job finish, machine will stop and air ventilation at the same time. As soon as machine finish air ventilation, open the vacuum cover and use unloading switch to unload the product in drum.

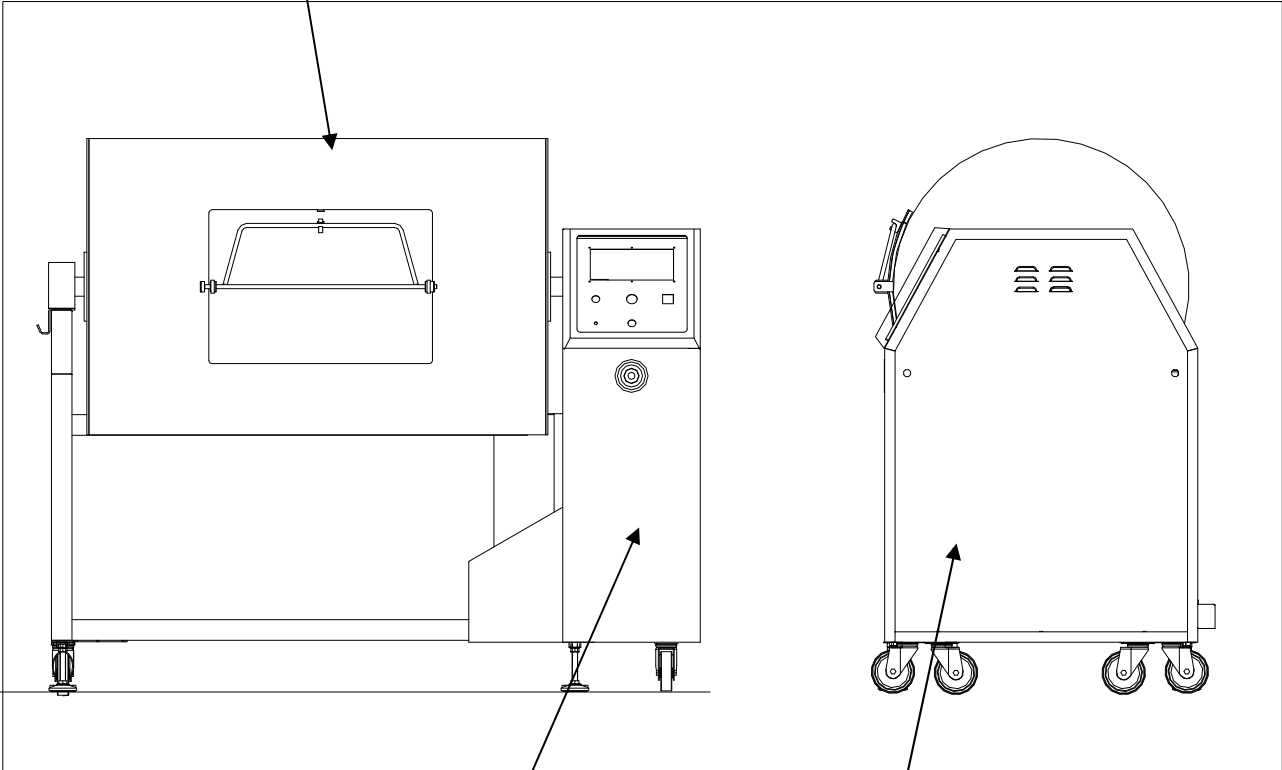
The stopper on the side of the machine is design to hold the drum and remain it in the same angle and help user to load in the processing product. How to use the stopper:

- A. Push in the handle bar of stopper to the hole of the drum before load in the processing product.
- B. Pull back the handle bar of stopper from the hole of the drum before start the machine.

Warning: The handle bar of the stopper must be pulled back before user start the machine!! The machine will be damaged if user have not fulfill it!!

7. FABRICATION

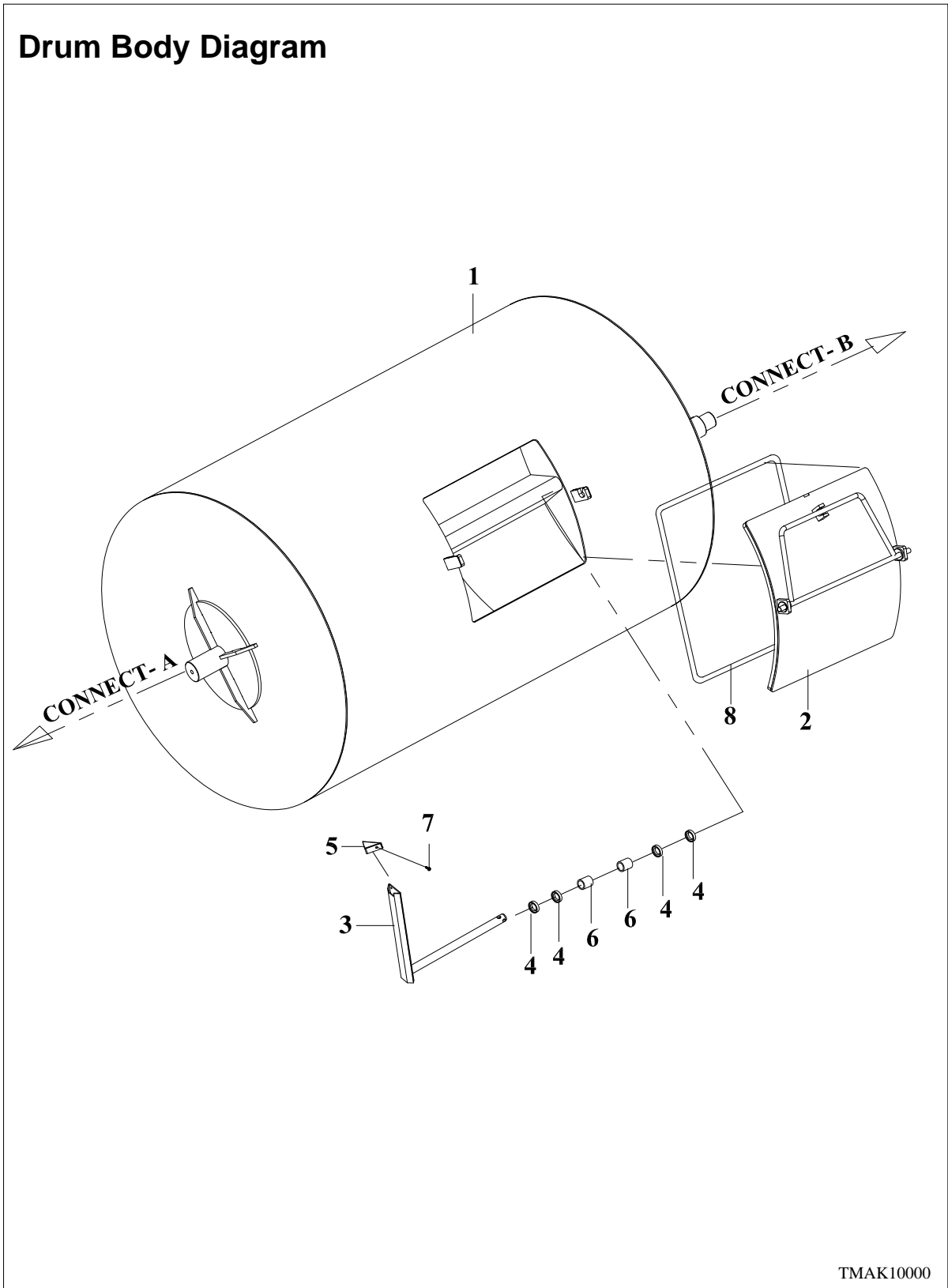
7.1 DRUM BODY



7.2 MACHINE CASE

7.3 ELECTRICAL BOX

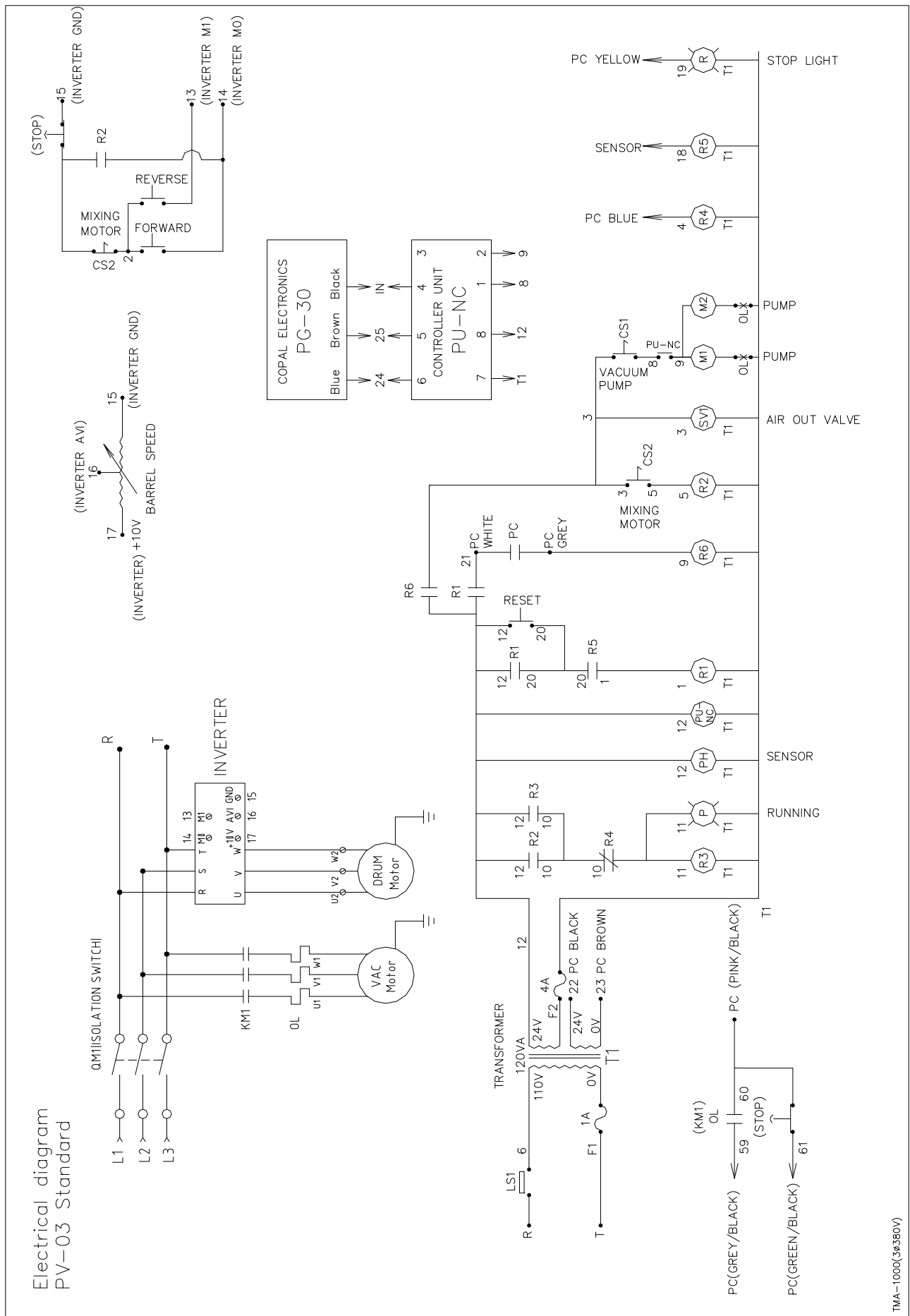
7.1 DRUM BODY



NO.	PART NO.	DESCRIPTION	QTY	NOTES
1	TMAK101000	Frame(TMA1000)	1	
2	TMAK102000	Side frame(TMA1000)	1	
3	TM5H116000	Electrical protect plate	1	
4	MC1K106000	Chain wheel	1	
5	MC1K107000	Chain wheel	1	
6	TMAK180000	Control panel plate	1	
7	TM3H181001	Control panel bottom plate	1	
8	TM3H215000	Vacuum connection	1	
9	TM3H216000	Valve fixed shaft	1	
10	TM3H130021	Window	1	
11	MC50129000	Cover plate	1	
12	MC1K103000	Cover plate	1	
13	MC50122001	Motor fixed plate	1	
14	TM3H130011	Control panel cover plate	1	
15	D2320020	Hinge	2	
16	TM3H190000	Side door	1	
17	2712222	Base leg	4	
18	2850608	Sensor	1	
19	TM3H803000	Panel	1	
20	TM3H801000	Electrical box	1	
21	2728557	Bearing pillow blockUCP211	1	
22	28017051	Switch	1	
23	2870077	Switch M22EL-TSF20E30	1	
24	27121411	Casters 4"	4	
25	29118085	Valve VXZ2242-04-BGR1(AC24V)	1	
26	290932570	Nipple 1/2"x30	3	
27	TM3H145000	Cover plate	2	
28	2705329	Flat washer M16	6	
29	2883349	Door lock C408K	2	
30	28501030	Reflector	1	
31	2883343	Hinge	1	

NO.	PART NO.	DESCRIPTION	QTY	NOTES
32	2815289	Decelerator LM-HMW-80-60-L-1HP	1	
33	2701501	Round head screw M6x12(S)	2	
34	27004001	Hex head screw M10x20(S)	8	
35	2705304	Split lock washer M10(S)	8	
36	274000661	Elbow 1/2"	2	
37	290932569	Nipple 1/2"x60	3	
38	2705189	Flat washer M10(S)	6	
39	2728566	Bearing pillow block UCFL211	1	
40	2705328	Split lock washer M16(S)	4	
41	270020290	Hex head screw M16x45(S)	2	
42	2705322	Split lock washer M14(S)	4	
43	2814531	Motor 1HP/4P/1 ψ 110/220V 50/60HZ	1	
44	27070094	Nut M14 (S)	8	
45	27136064	Chain RS60(TMC1000)	1	
46	2705329	Flat washer M16(S)	2	
47	27071103	Nut M16 (S)	2	
48	2705155	Flat washer M14(S)	2	
49	2853313	Limit switch TZ-7311	1	
50	2909262	Bend 1/2" (S)	2	
51	2961059	Vacuum pump 1 ψ	1	OPTION
	2961063	Vacuum pump 3 ψ	1	
52	29093291	Fitting TYPE B 3/4"	1	
53	TM5H260000	Connection 1/2" (S)	1	
54	2909238	Fitting	2	
55	2940011	Filter bottle	1	
56	2705151	Flat washer M6(S)	16	
57	2700402	Hex head screw M6x16(S)	16	
58	2714251	Chain wheel plate RSC-45-60S	1	
59	MC50121000	Fixed mount	1	
60	MC50123000	Cover plate	1	
61	270020291	Hex head screw M16x35(S)	3	
62	29090097	Tee branch valve 1/2"(S)	1	
63	2714752	Gasket L=1230	1	
64	2832024	Timer	1	
65	2851407	Sensor	1	
66	29135564	Pressure guage	1	

7.3 ELECTRICAL DIAGRAM



TMA-1000(36580V)

7.3 ELECTRICAL BOX

ITEM	PART NO.	DESCRIPTION	SPECIFICATION	Q'TY	NOTE
KM1	2810758	Contactor	CU-16-B5 (AC24V)	2	
R1~6	2830132	Relay	RU4S-C-A24	1	
	2831106	Socket,Relay	SY4S-05D	1	
T1	28960022	Transformer	120VA/380-415V.OF-24V UL	1	3 ϕ 380V
KM1 OL	2811534	Relay, Overload	RHU-10K1(4.5-6.3A)	1	1 ϕ 110V DVP06
	2811538	Relay, Overload	RHU-10K1(11.3-16A)	1	1 ϕ 110V 21PUMP
	2811529	Relay, Overload	RHU-10K1(1.4-2A)	1	3 ϕ 380V 21PUMP
IN1	2805124	INVERTER	VFD007S43A	1	3 ϕ 380V
QM1	28017051	Switch selector	P1-32/EA/SVB	1	
PU-NC	2856019	Controller	DC12V 100mA (AC24)	1	

