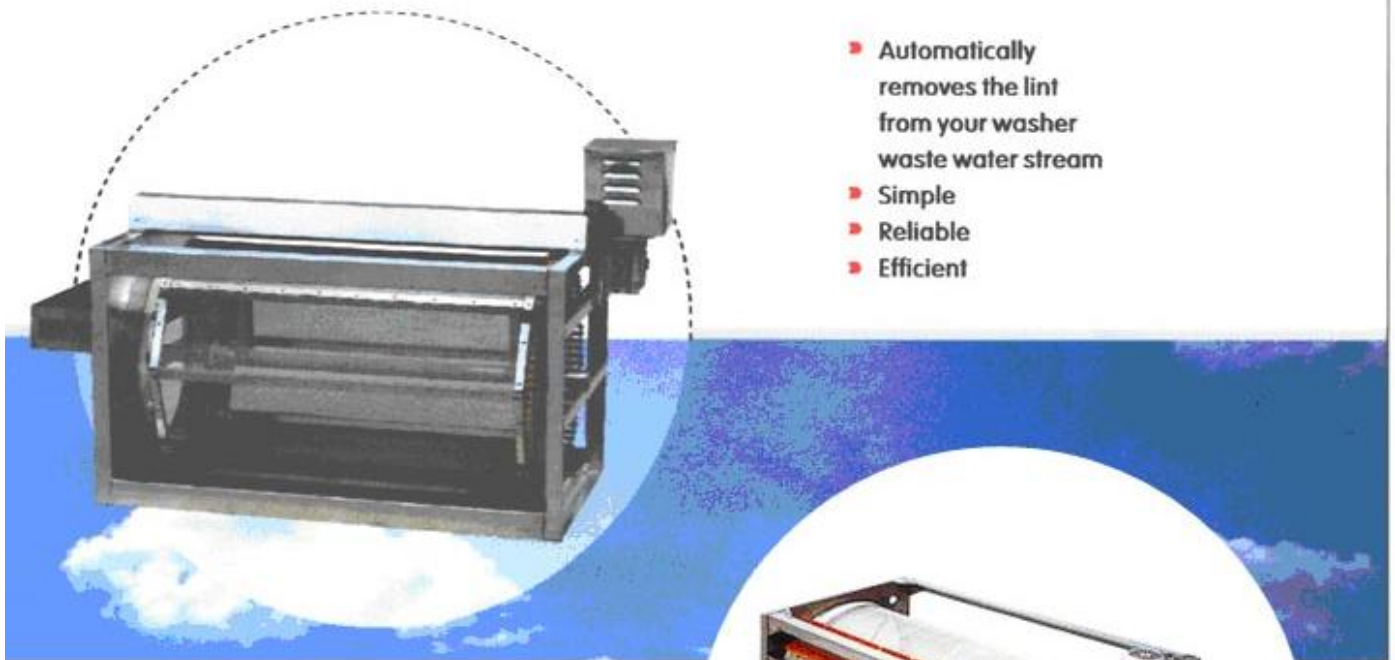




INTEGRATED
ENVIRONMENTAL
SOLUTIONS

REGENERATIVE MICRO FILTER RMF WATER FILTER



- ▶ Automatically removes the lint from your washer waste water stream
- ▶ Simple
- ▶ Reliable
- ▶ Efficient



OWNERS AND OPERATORS MANUAL

Application

The Regenerative Micro Filter is used widely in filtration of industrial contaminated water streams in textile, laundry, chemical, refrigeration, paper making and etc. It is suitable to clean various types of debris from the contaminated water stream; including fiber, dust and other types of suspended particles.

Construction and Principle

1. Filtration requires no external pressure, it uses only gravitational flow. The filter is placed in an open tank or concrete trench. Once the water level reaches the required differential level, the water potential difference between inlet water and outlet water levels, the water will flow through the filter properly.
2. Filtration with a rotary cage. As the main component, the horizontal cage has one open side and the other side is sealed. The contaminated water stream will be filtered as it passes through the screen on the surface of cage.
3. As the contaminated water stream goes into the cage from the outside, contaminants (lint, etc.) are trapped on the outside of the cage. A timer or water level controller will automatically initiate the water back flush system, which washes the debris into the waste trough by spraying from the inside to the outside of cage. At the same time, the cage and roller brush will rotate in the same direction; thus causing the tangent surfaces to rotate in the reverse direction. This loosens contaminants from the surface of the screen cage and such that they can be carried by the back-flush water into the waste trough. The waste trough can be discharged into a waste tank or bucket for disposal.



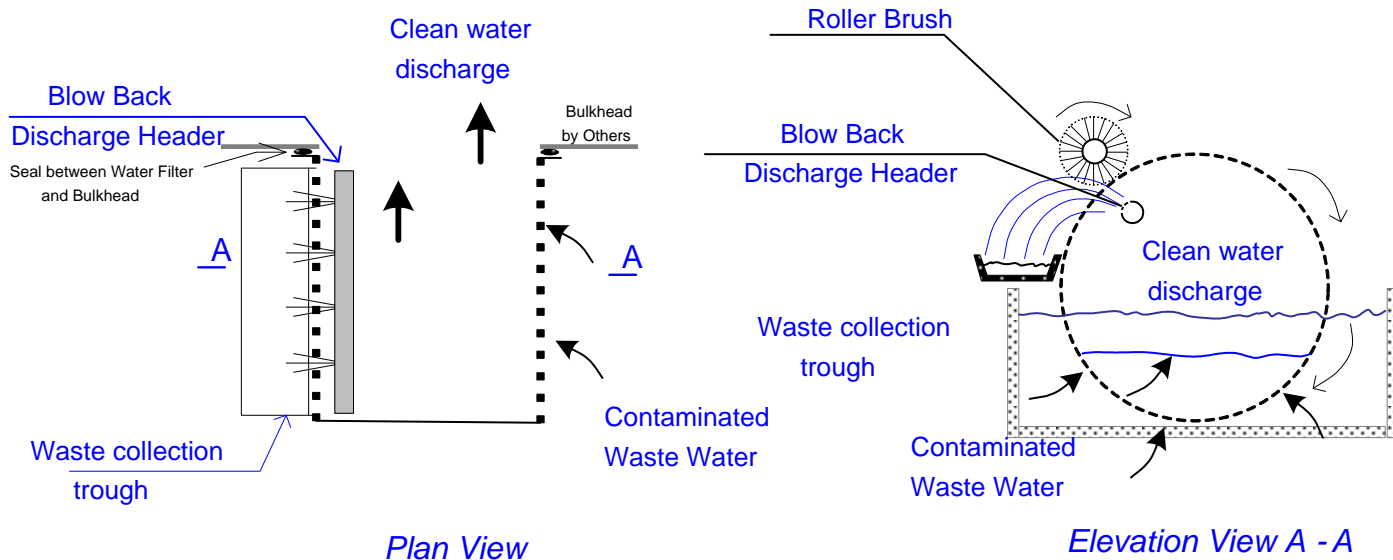


FIGURE 1 . View of Water Filter

Characteristics

1. The direct drive garmotor rotates the drum cage during the cleaning cycle. No belts or other devices that cause failure and maintenance.
2. The seal between the cage and the bulkhead surface is a tight and stable tapered seal.
3. The dual cleaning action of the rotating brush and back-flush spray water virtually assures that the screen remains completely clean.
4. The entire unit is made with corrosion resistant stainless steel and nylon to guarantee long life and maintenance free service.

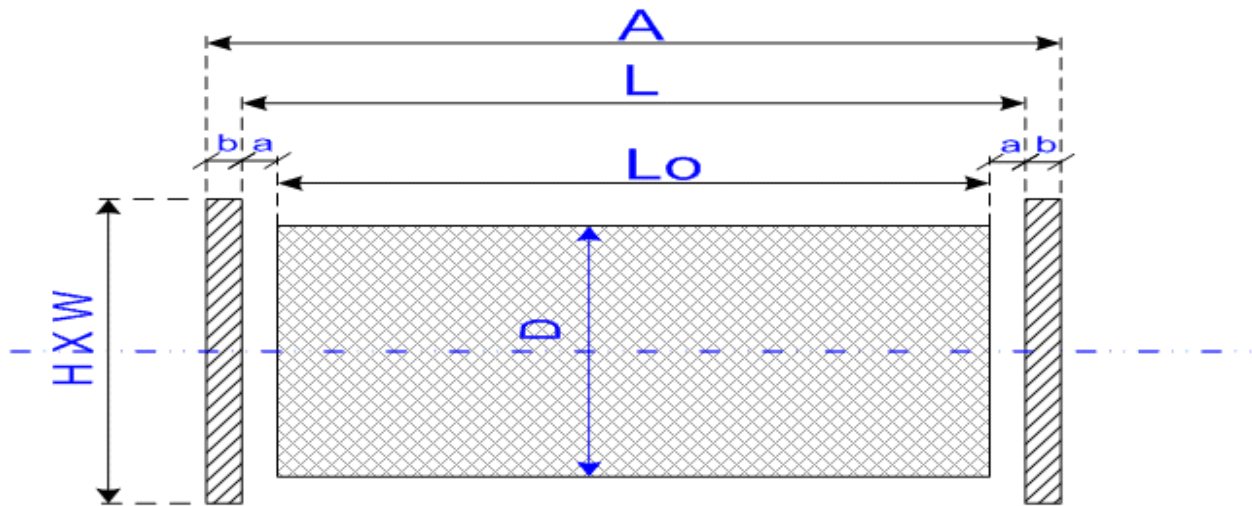


Fig.#2 Dimensional View

Table.1 Specification of Water Filter

Flow		Diameter (mm)/inches													
		mm	500		600		750		900		1150		1400		
		in	19.7		23.6		29.5		35.4		45.3		55.1		
Length (mm) in	mm	in	m3/h	gpm	m3/h	gpm	m3/h	gpm	m3/h	gpm	m3/h	gpm	m3/h	gpm	
	600	23.6	100	441											
	900	35.4	150	661											
	1120	44.1	200	882	300	1323									
	1220	48.0	250	1102	350	1543	450	1984							
	1500	59.1			400	1764	500	2205	600	2646					
	1750	68.9					550	2425	650	2866	800	3527			
	2000	78.7							700	3086	900	3968	1000	4409	
H X W		mm	600	600	750	750	900	900	1050	1050	1350	1350	1600	1600	
		in	23.6	23.6	29.5	29.5	35.4	35.4	41.3	41.3	53.1	53.1	63	63	
Lowest Water Level		mm	350		450		550		650		800		1000		
		in	13.8		17.7		21.7		25.6		31.5		39.4		
Electric Power		kW	0.25		0.37		0.37		0.55		0.55		0.75		
		HP	0.33		0.5		0.5		0.75		0.75		1		

Model Number Designation

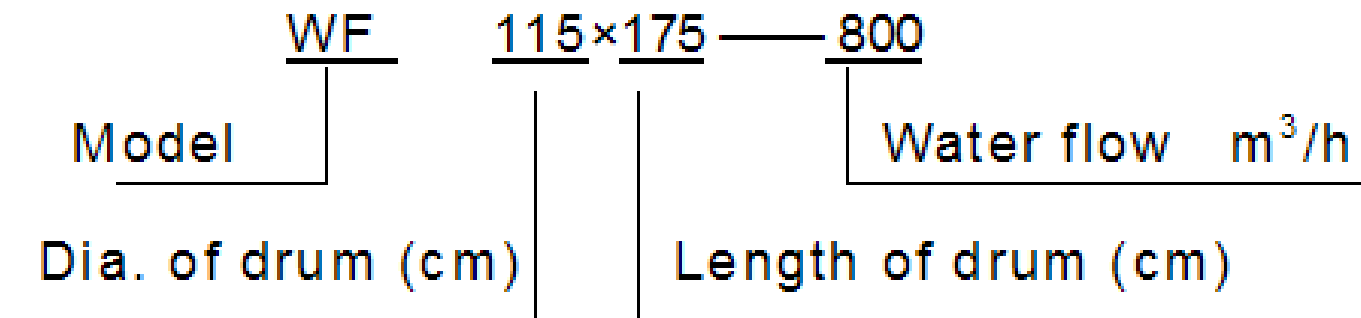
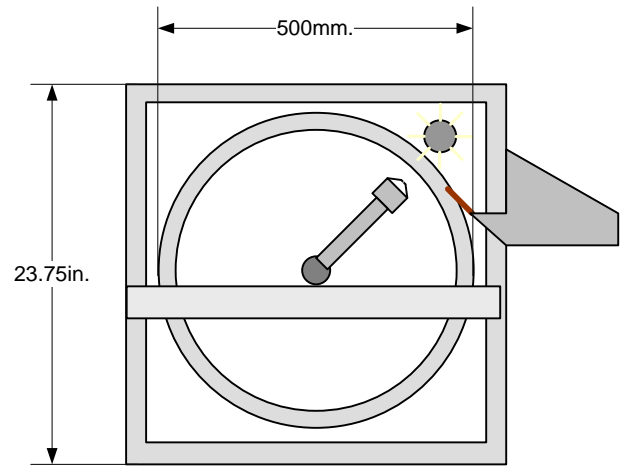
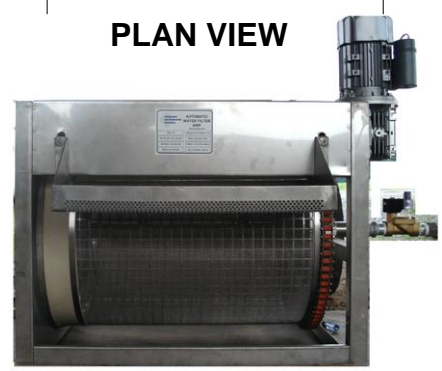
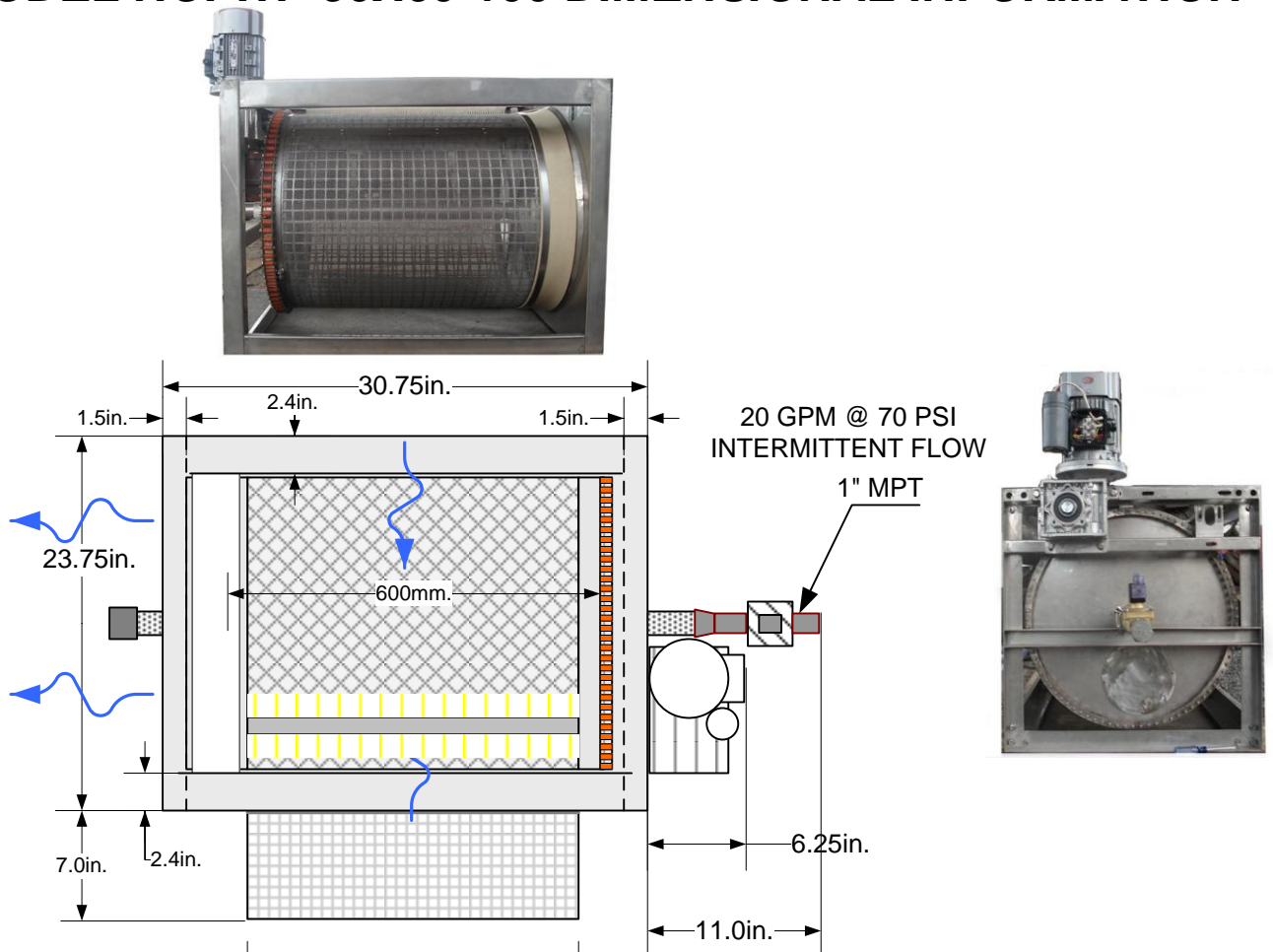


Table.2 Profile Dimension of Water Filter (mm)

No.	Specification Number	Dimension (H×W×A)
1	50 × 60 — 100	600 × 600 × 780 (23.6"× 23.6" × 30.7")
2	50 × 90 — 150	×1080 (42.5")
3	50 × 112 — 200	×1300 (51.2")
4	50 × 122 — 250	×1400 (55.1")
5	60 × 112 — 300	750 × 750 × 1320 (29.5"× 29.5" × 52")
6	60 × 122 — 350	×1420 (55.9")
7	60 × 150 — 400	×1700 (66.9")
8	75 × 122 — 450	900 × 900 × 1420 (35.4"× 35.4"× 55.9")
9	75 × 150 — 500	×1700 (66.9")
10	75 × 175 — 550	×1950 (76.8")
11	90 × 150 — 600	1050×1050×1740 (41.3"× 41.3"× 68.5")
12	90 × 175 — 650	×1990 (78.3")
13	90 × 200 — 700	×2240 (88.2")
14	115×175 — 800	1350×1350×2030 (53.2"× 53.1"× 79.9")
15	115×200 — 900	×2280 (89.8")
16	140×200 — 1000	1600×1600×2340 (63"× 63"× 92.1")

MODEL NO. WF-50X60-100 DIMENSIONAL INFORMATION



Remarks:

1. Profile refers to main frame dimension, not including the size of the transmission case, transmission mechanism, waste tank and extended part of blow back pipe.

2. Filtration Water Flow in Table 1 refers to a screen of 30 mesh. When screen mesh changes, Filtration Water Flow should be correspondingly modified. The modifier coefficient is as follows:

30 mesh screen	C=1.0
60 mesh screen	C=0.75
80 mesh screen	C=0.50
120 mesh screen	C=0.30

Installation and Maintenance

1. Install the unit in the outlet of waste tank or trench. The dimensions of the tank are as follows: As is shown in Figure 3, A, D & H refers to length, width and height of the profile. H_0 is clear height of tank and $H_0 = 0.75H$.

2. The gap between the bulk head and rotating screen drum cage is sealed with a flexible plastic material for preventing leakage from the contaminated water stream to the clean water stream. The height of the waste water will vary based on flow rate and filter screen mesh.

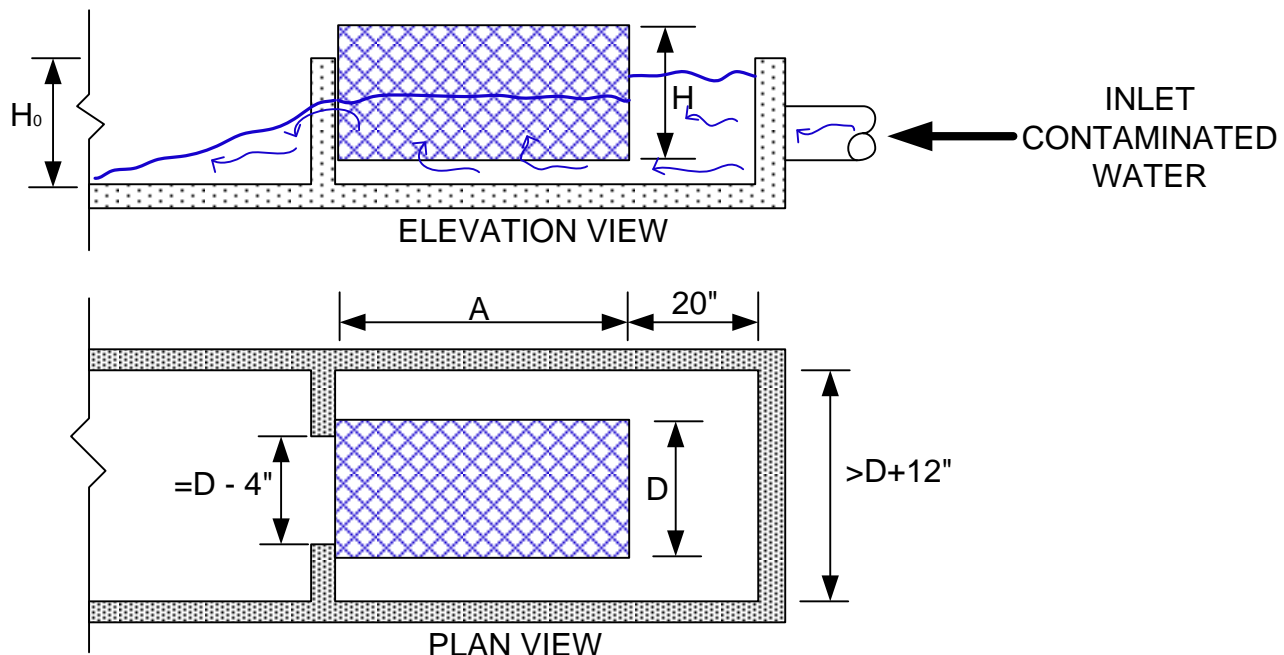


Fig. #3 Sketch of Typical Installation

3. Two back-flush spray manifolds connect in the center of the filter with a flexible connector. Thirty five (35) degrees is kept between the horizontal surface and the line connecting the center of pipe and cage. The spray level above the rubber plate of waste tank should be about 20-30mm in order to wash the waste from the surface of the screen into the waste trough. During installation check the angle of back-flush pipe and adjust to proper angle. Lose the clamp on the center pipe, adjust to the proper angle and then tighten the clamp.

4. The back-flush pipe can be connected with either end of the center pipe. In order to prevent blockage in the pipe; a pressure regulator valve and pressure gauge are required and the water source should be clean water.

5. If the back-flush pipe gets blocked you can clean it as follows:

- Turn off the machine. When the machine has stopped rotating, open the round access hole (which is on the seal end of the rotating cage).
- After removing the cover plate, open the flexible connection of back-flush pipe by hand.
- The other end of rotating cage is open, so you can open it by hand.
- Remove the pipe from inside the cage, then remove the end cap and finally clean the inside of the pipe with a brush or other tool.

6. Always turn the power off for safety before performing maintenance.

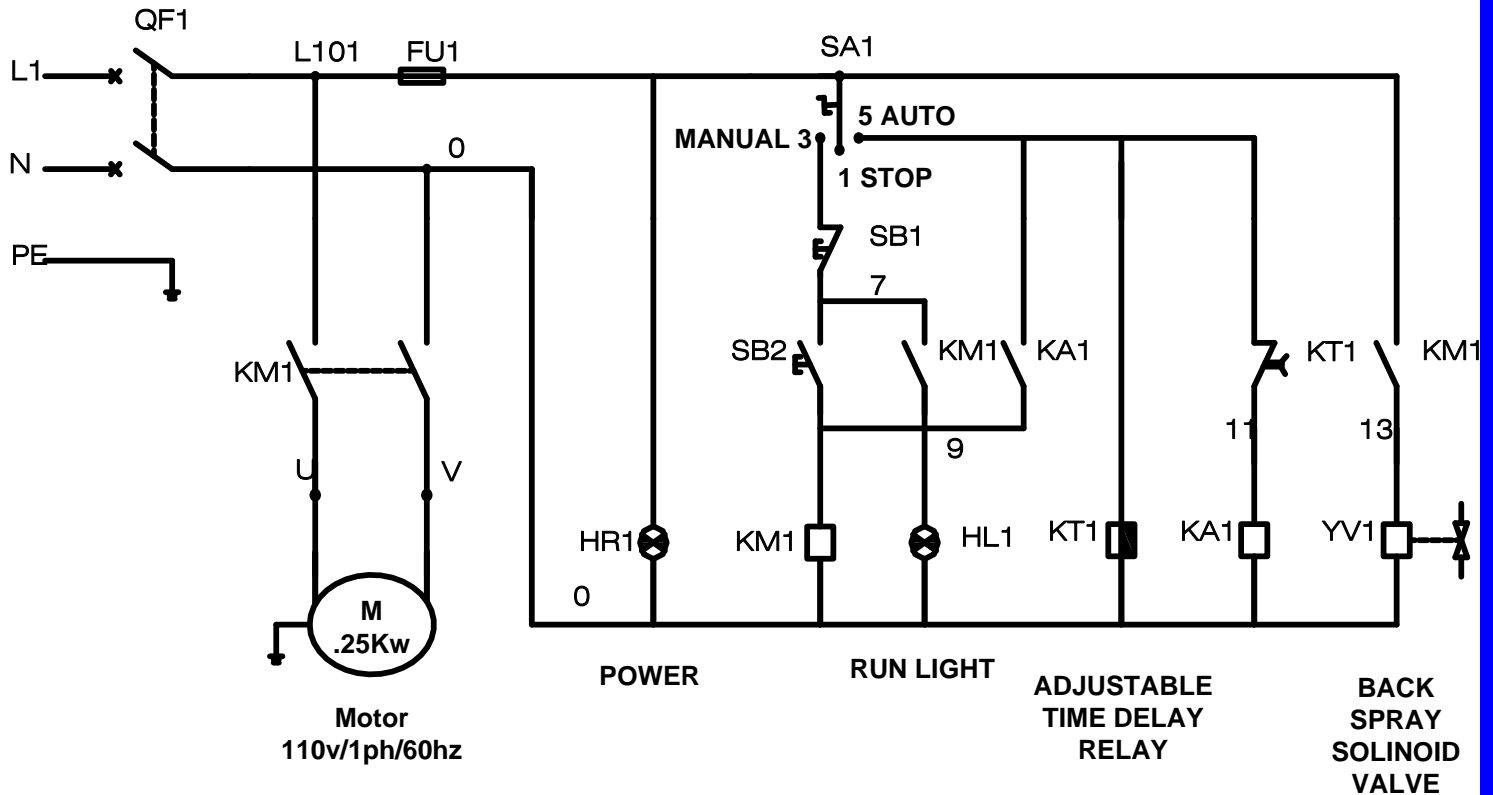
Recommended spare parts:

1. nylon bushings
2. nylon cover on both sides of brush



CONTROL WIRING DIAGRAM

AC - 110V/1PH/60HZ

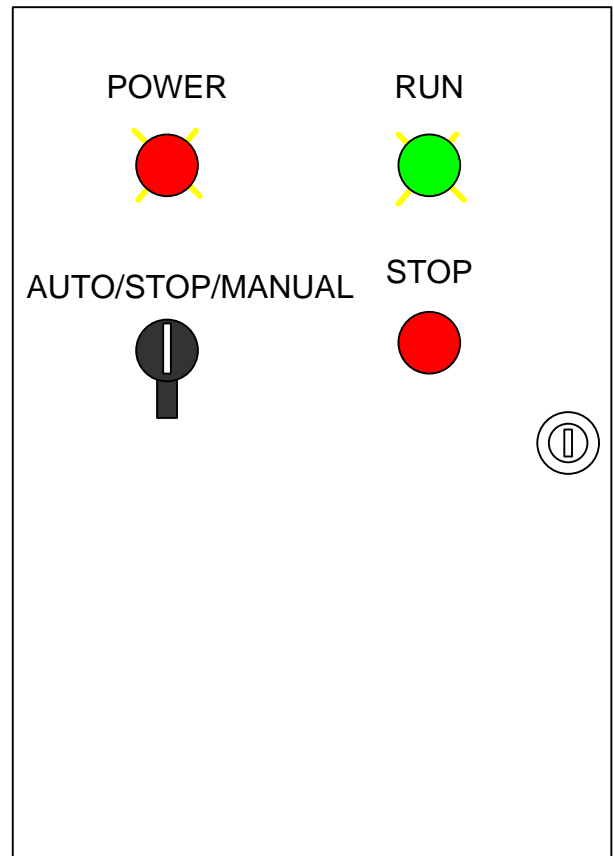


Nomenclature

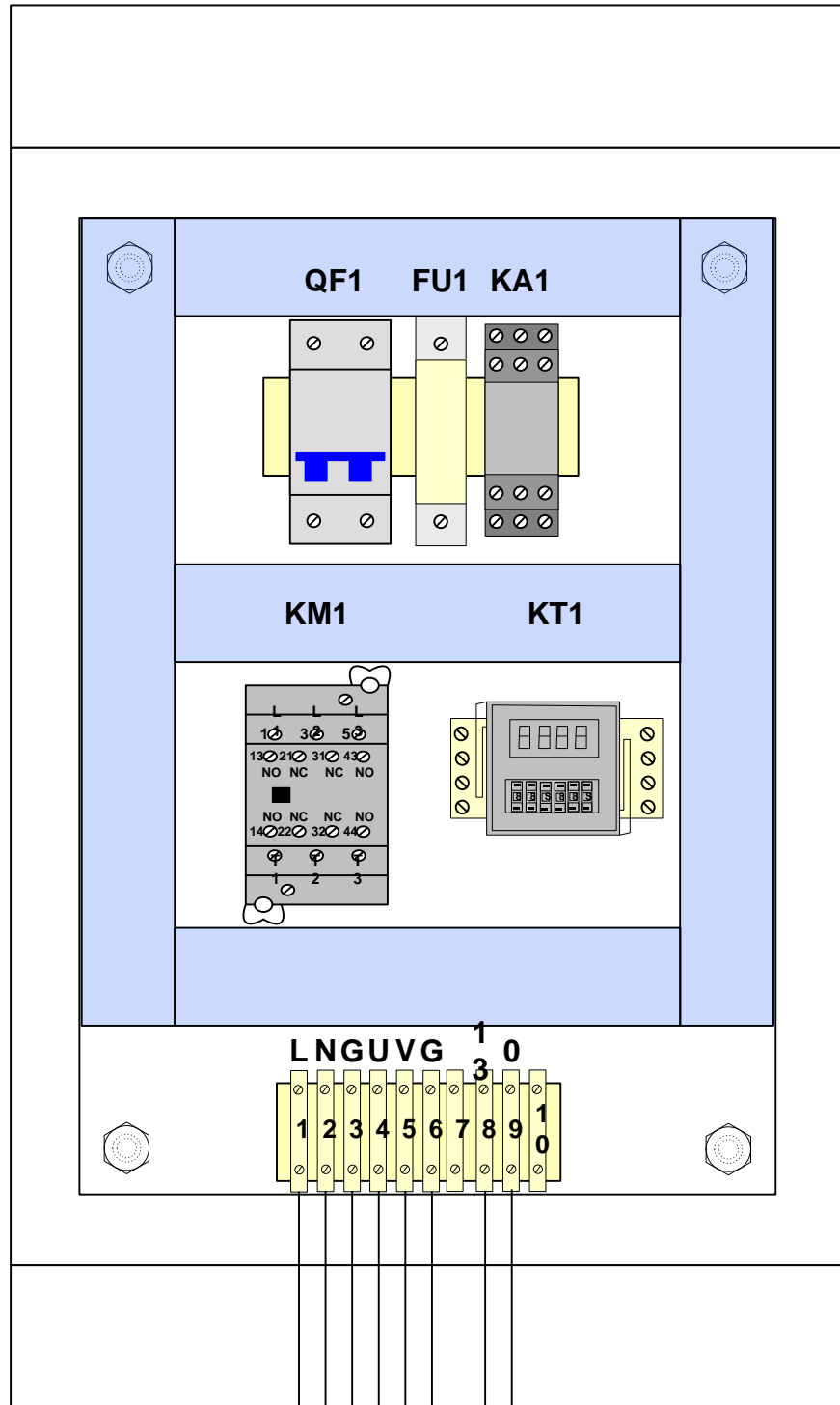
NOTATION DESCRIPTION

- QF.....MOTOR DISCONNECT SWITCH
- KM.....MOTOR STARTER CONTACTORS
- KA.....RELAY
- KT.....TIME DELAY RELAY
- YV.....SOLINOID VALVE
- HL.....DISPLAY LIGHT
- HR.....DISPLAY LIGHT
- SA.....ROTATING SWITCH
- SB.....PUSH BUTTON SWITCH
- FU.....FUSE
- XT.....TERMINAL BLOCK
- M.....MOTOR
- PE.....GROUND

CONTROL PANEL FACE



CONTROL PANEL LAYOUT



OWNERS
POWER PANEL

L
N
120V/1PH/60HZ

**SOLENOID
VALVE**

M
.25KW

Regenerative Micro Filter 'RMF' Sequence of Operation

1. Operation

When SA1 switch turns to auto, set work time T1 and stop time T2, the time relay KT1 and AC contactor KM run, and the solenoid valve YV1 is open. When water filter runs T1, the solenoid valve YV1 switches off, and the water filter stops. When the water filter stops T2, it runs T1 again, such running back and forth. When the switch SA1 turns to manual, press SB2, the motor starts, and the solenoid valve YV1 opens, press SB1 to end the running. When the switch SA1 turns to stop, the auto and manual do not work.

Setting time and unit description: S 0-99 seconds M 0-99 minutes

H 0-99 hours

2. Material parts list

Serial number	Code name	Name	Specification	Quantity
1	QF1	Breaker	DZ47-60/5	1
2	KM1	AC Contactor	CJX ₁ -9/110V	1
3	FU1	Fuse	RT1g-(2A)	1
4	SA1	Rotary Switch	NP4	1
5	SB1 SB2	Push Button Switch	NP4	1
6	KT1	Time Relay	JSS48A-S	1
7	KA1	Regenerate Relay	JZX-22F/3E	1
8	HR1	Indicator Lamp	NP4	1
9	HL1	Indicator Lamp	NP4	1
10	YV1	Solenoid Valve	ZH-25	1



INTEGRATED
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Changes in the design, materials and specifications may be made without notice to customers.