TMG INDUSTRIAL®

TMG-PST260
PRODUCT MANUAL
v.2026.07.18

260 Gal Airblast Sprayer



⚠ WARNING



Please read and understand the product manual completely before assembly
- Check the parts list to make sure all parts are received.
- Wear safety goggles or other protective gear while assembling.
- Do not return products to dealers, who are not equipped to handle returns.

Missing parts or have questions on assembly?
Email: cs@tmgindustrial.com
Or visit: tmgindustrial.com

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1.Safety Warnings

The proper use of the machine is based on the safe operations. Please comply with the instructions described in this chapter strictly.

A. When placing the machine on the ground, please confirm in advance the place is smooth, non-sloped and solid.

B. While the fan is running, it is strictly forbidden to project hands or any foreign bodies into the protective grill or the place of transmission shaft.

C. While the transmission shaft is running, it is strictly forbidden to do any repair or maintenance work for the pump, such as refill of oil and inflation of accumulator, etc.

D. Only trained, alert operators who are physically capable of safely operating the machine may use it.

E. When using and dealing with chemicals, the operator should carefully read and strictly comply with the safety instructions provided by the chemical manufacturer.

F. It is strictly prohibited to use inflammable, explosive, strong acid, strong alkali, and other special liquids.

G. The tractor driver should have the driving license approved by related traffic and safety department.

H. The manufacturer is not responsible for the accidents caused by any modifications of the machine or any improper operations of the machine.

In this manual and on the machine you will find the following warning signs for different security attentions. When seeing these signs, you should take precautions for possible risks and injuries. Read carefully the information under these signs and inform the other persons related.

Explanations of these safety symbols:

	Read the manual
	Protect your hearing
	Use a mask
	Use protective clothing
	Use gloves
	Warning: Risk of injury

	Cardan shaft caution
	Toxic
	Max. pressure
	Max. speed
	No passing
	Do not remove safety mechanisms
	Do not clean or lubricate while running
	No smoking
	Do not enter in the tank
	Driving speed max. 30km/h
	Circuit washer Non-drinking water
	Hand washer Non-drinking water

2.Product Introduction

This type of mist blower is designed to deliver fog droplets by blast air produced by the high speed axial fan, thus having very good penetrating and adhesive properties of atomizing. It also has advantages of long and wide distribution range, fine atomization, easy maintenance, long life, etc. and thus widely used for agriculture and forestry plant protection treatments. It is suitable for the pest control in large area orchards, such as apple, pear, peach, orange, etc., and suitable for the treatment of vines and vegetables which are cultivated in forms of espalier or canopy and in rows.

3.Product Features

1. The liquid pump is of diaphragm type characterized by high pressure, stable flow, permission of dry run, long service life, etc.
2. The fan unit has plasticized rotor blades, whole plastic or galvanized iron protective casing, characterized by strong airflow, long and high shooting range, good penetration.
3. The machine is fitted with double head anti-drip cone nozzles, which distribute even droplets. The spray volume can be adjusted by converting the two ends of each nozzle conveniently (1.2mm and 1.5mm orifice) or either end can be closed according to target demand. The special ceramic nozzle plate is high pressure resistant and corrosion resistant.
4. The spray booms are made of stainless steel and will never get rusty.
5. Fitted with integrated tanks, including chemical tank, circuit washing tank, hand washing tank, with good-looking appearance, long durability, good resistance to chemical corrosion.
6. Equipped with antipollution hydroejector (models of 1000L and above), water and chemicals can be filled into the chemical tank automatically without additional pump, and the liquid in the chemical tank can be agitated sufficiently by the high pressure water flow.
7. Technically the machine is designed with features of rational structure, simple operation, easy maintenance, large volume tank capacity. It can be coupled with the tractor's rear mounted towing mechanism quickly and conveniently. It has high work efficiency, good treatment effect and needs less labor.

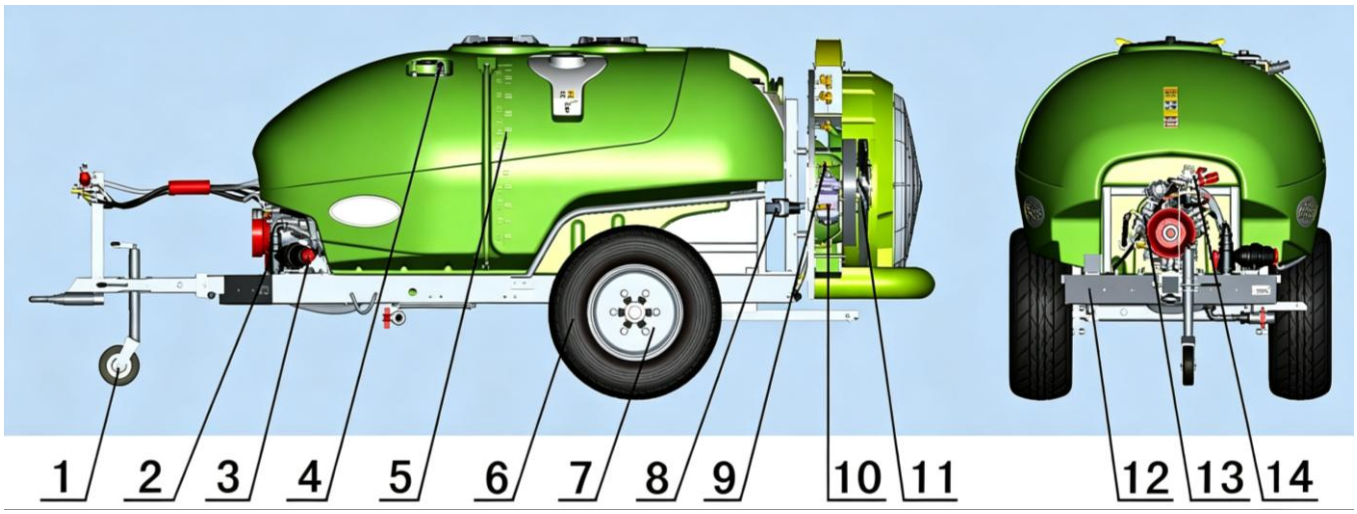
4.Technical Specifications

Model		PST260
Type		trailed
Power supply	Power input	Tractor PTO shaft
	Mating power	≥35Hp
Spray system	Spray boom	2 booms, separate control
	Nozzle type	double head anti-drip cone nozzles
	Nozzle orifice dia.	1.2mm &1.5mm, rotational
	Nozzle number	10pcs
	Spray pressure (MPa)	1.0~4.0
	Spray range (m)	10
Pump	Type	diaphragm
	Suction (L/min)	125
	Work pressure (MPa)	0~4.0
	Max. speed (r/min)	540 (6-teeth spline shaft)
	Power (Kw)	8.8
Fan	Fan dia.(mm)	700
	Multiplier gear	1
	Speed (r/min)	1890
	Volume (m^3/h)	15800
	Power (Kw)	4.0
Tanks	Chemical tank (L)	1000
	Circuit washing tank (L)	100
	Hand washing tank (L)	15
Tire size (inch)		10.0/80-12
Rim size (inch）		12*7
Driving speed (km/h)		≤30
Dimension (L×W×H)		93”x54”x58” (2360x1370x1460mm)
Weight		944 lbs (428 kg)

5.Structure and Principle

1. Composition

The trailed orchard mist blower is mainly composed of four major parts including blower system, plumbing system, tanks and trailer unit. The blower system is composed of fan rotor, plastic casing, airflow deflection shield, deflection plates, nozzles, multiplier, cardan shaft etc. The plumbing system is composed of diaphragm pump, 3-way ball valve, suction filter, pressure regulator, etc. The integrated tanks include chemical tank, circuit washing tank, hand washing tank. The chemical tank is fitted with a pressure stirrer for mixing the chemical liquid inside. The trailer unit is to be coupled with the tractor which outputs power to drive the pump and fan rotor so that to do spraying jobs. Details as shown below:

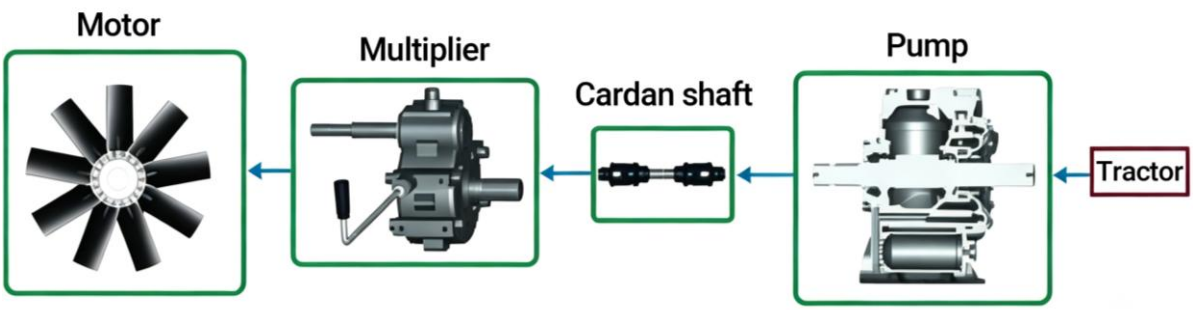


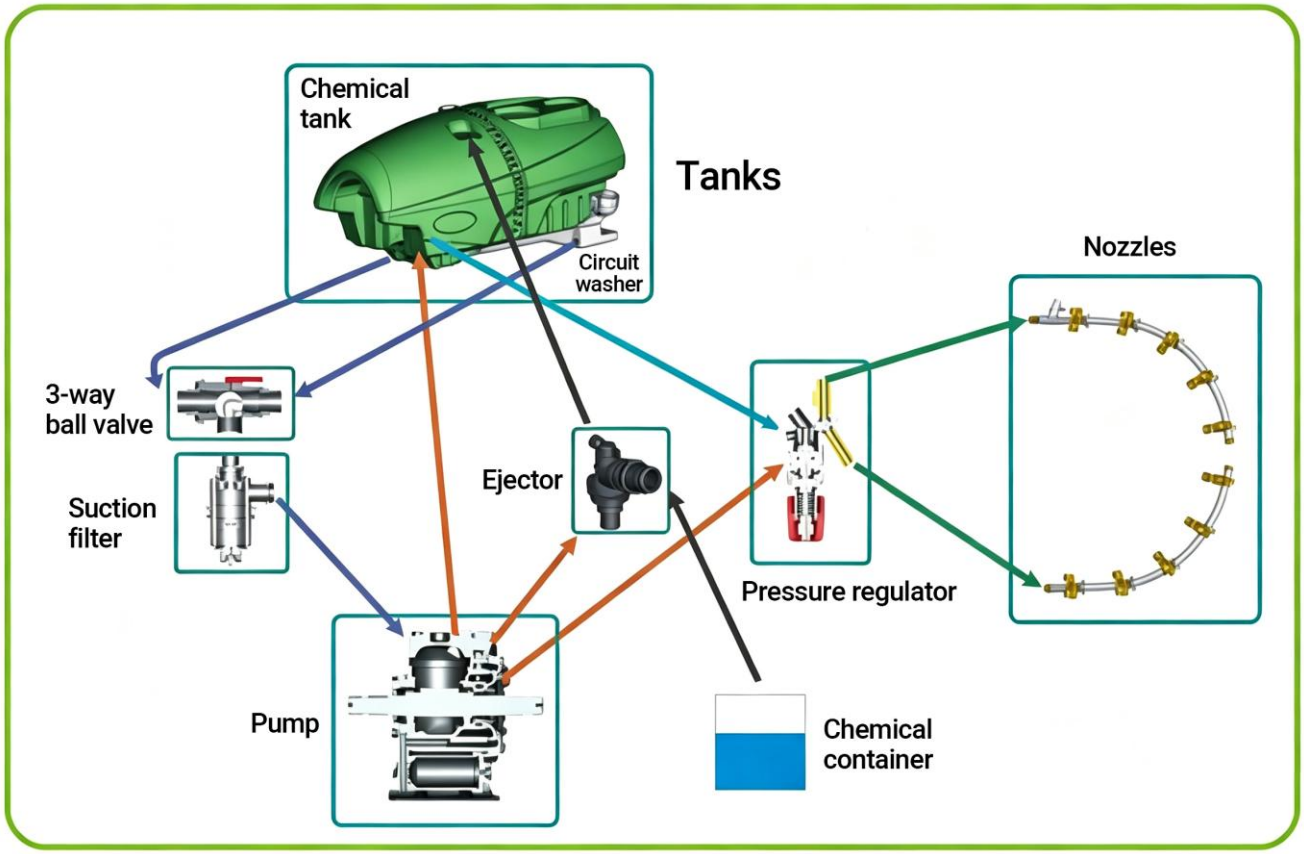
1.Parking wheel
2.3-way ball valve
3.Suction filter
4.Ejector
5.Integrated tanks
(Chemical tank, Circuit washing tank, Hand washing tank)
6.Tyre
7.Rim
8.Cardan shaft
9.Anti-drip nozzles
10.Multiplier
11.Fan rotor
12.Chasis
13.Diaphragm pump
14.Pressure regulator.

2. Work principle

Through the cardan shaft, the pump is driven by the tractor power take-off. The liquid is sucked into the pump through the suction filter from the chemical tank, and is pressurized, then enters into the spray booms through the section valves of pressure regulator, and atomized by the nozzles. And then the fog droplets are blown out onto the target by the high speed air flow. The surplus of liquid flows back to the chemical tank through the overflow pipe of the pressure regulator and stirs the liquid.

Transmission Diagram





6.Operation Instructions

1. **Working illustrations**

This equipment is coupled with a tractor with rear-set 1”3/8 power take-off, runs at 540rpm.

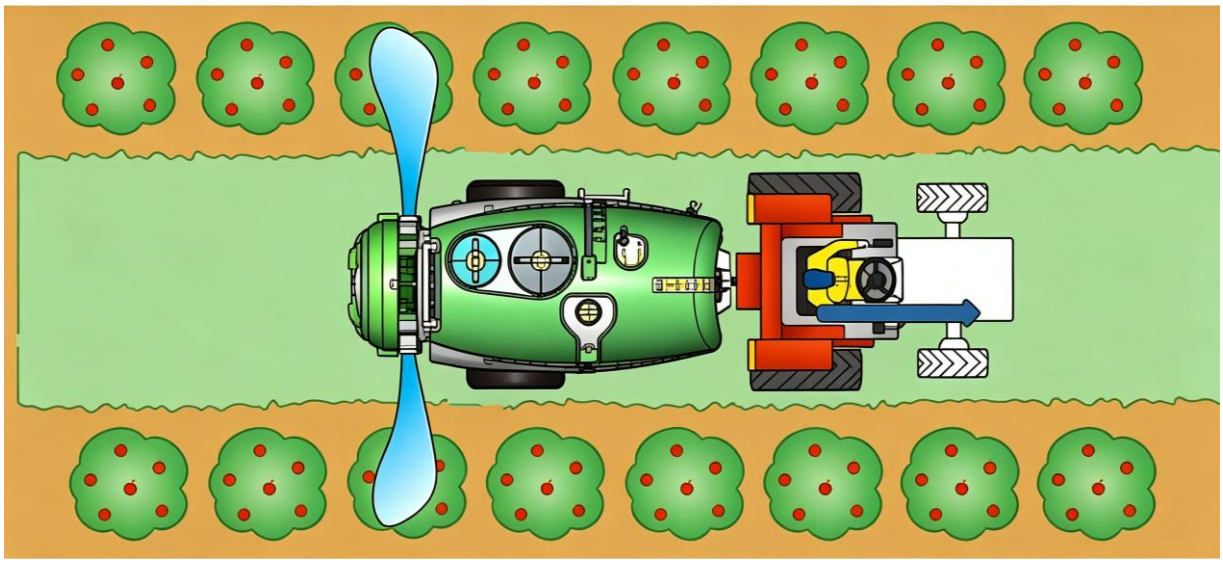


Illustration 1

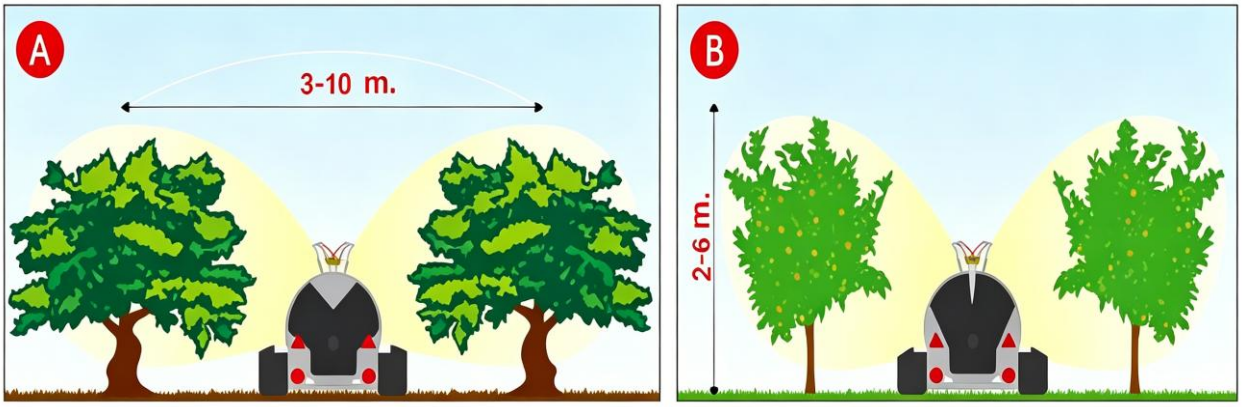


Illustration 2

2. Installation and Use

1) Preparations:

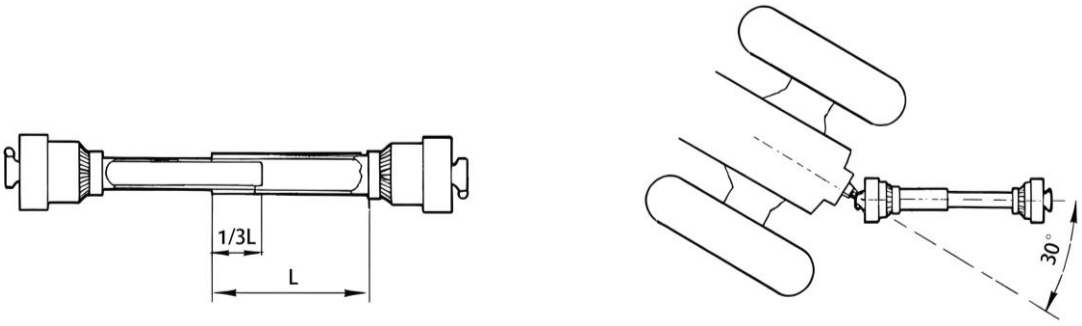
Make sure that the tractor is suitable for towing the weight of the fully loaded sprayer safely. Check the level of lubricants in the multiplier and diaphragm pump. If lower than the rated level, refill clean oils (SAE 30 for pump and SAE 90 for multiplier). Check if any of the nozzles are lost or damaged. Get ready all the safety appliances used for spray treatments.

2) Tractor Coupling

Connect the towing eye of the drawbar in front of the machine to the towing hitch of the tractor and fix them by pin. Then adjust the drawbar parking wheel and let it leave from the ground. When connecting the cardan shaft and the tractor power take-off, pay special attentions to the length of the cardan shaft to avoid:

a. IF IT IS TOO LONG, DANGEROUS THRUST ON THE PUMP SHAFT;
b. IF IT IS TOO SHORT, THE POSSIBILITY OF DANGEROUS BREAKAGES.

The minimum overlap of the inner axle and the outer sleeve must never be less than 1/3 of their length. In case the shaft is too long, cut down the extra part (cut down same length from the inner axle and the outer sleeve).



Please pay attention to avoid very tight steering circles with the cardan shaft turning (max.30°) as this could damage both the cardan shaft and the pump.

3) Test with Clean Water

It is good practice to do a test with clean water before the first treatment to make sure the sprayer is working properly and get to know the controls. Test procedures as follows:

Adjust the pressure regulator to a low pressure position, and put the pressure relief handle to the drain position (lift it up),(Fig.a)

Check and make sure the 3-way ball valve handle (red) is opened to the outlet pipe of the chemical tank, (Fig.b)

Check and make sure the outlet tap (on the pump) for pressure stirring in closed position (opened while treatment), (Fig.c)Check and make sure the outlet tap (on the pump) that supplies the ejector in closed position (opened while chemical filling). (Fig.d)

Check and make sure the multiplier gear is engaged normally. For one speed multiplier, use the hexagonal spanner fitted to engage or disengage. (Fig. e) For 2-speed multiplier, you can change from one gear to the next (high and low and neutral) with the lever on the multiplier. (Fig.f) If it is difficult to engage, turn the cardan shaft slightly by hand to find the right position (make sure the tractor is turned off).

Fill clean water into the chemical tank through the tank strainer until 1/4 volume place.

Then fill in the circuit washer tank with clean water.

And fill in the hand washer tank with clean water.

Activate the tractor PTO and observe whether all the moving devices are running properly, whether there are abnormal noises, whether the pump is solid, whether the protective covers are solid.



Pressure drain position
(handle lifted up)



Adjustment position
(handle put down)

Fig.a



Chemical tank outlet opened



Outlets closed



Circuit washer tank outlet opened

Fig.b



Stirrer Opened position



Stirrer Closed position

Fig.c



Ejector Opened position



Ejector Closed position

Fig.d

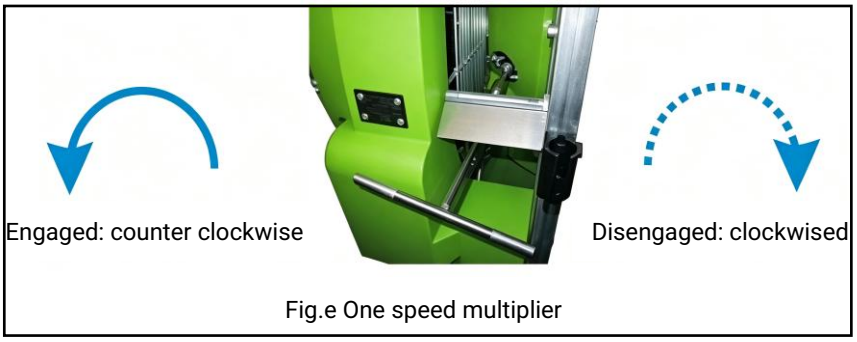


Fig.e One speed multiplier

Warning: Never engage or disengage the gear while the PTO is running.

Open the delivery valves on the pressure regulator (fig.a) to spray, open the outlet tap (on the pump) for pressure stirring (fig.c), set the tractor throttle on normal working speed (350-540 rpm), put down the pressure relief handle, adjust the working pressure of the pressure regulator according to need (max.4Mpa). While the trial spraying, observe whether all the nozzles are spraying normally and in good state, whether the stirrer is working normally, whether all the pipe fittings are in good state, whether there are any leaks, whether the fan speed meets requirement.

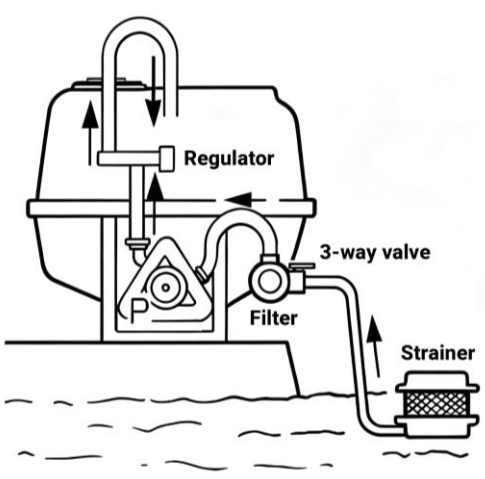
4) Spray Operations

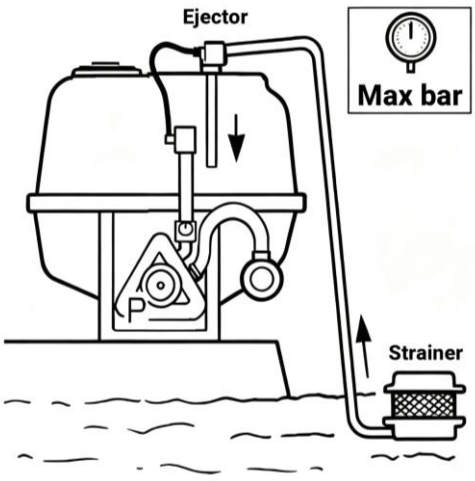
Drive the sprayer to the water sources nearby the treatment place. Through the tank strainer, firstly fill in water and then add chemicals until the rated tank capacity.

Other ways to fill the tank by running the pump:

a. Through the pump suction filter by using a pipe with coupling (G1 1/2).

b. Through the filling ejector. By this way, you need to put roughly 20-30L water in the tank firstly and open the tap (on the pump) that supplies the ejector (fig.d). Chemicals can also be filled through the ejector (meantime chemicals will be mixed with the flowing water automatically).





Drive the machine to the field. Close the delivery valves, put down the pressure relief handle to adjustment position, open the outlet tap (on the pump) for pressure stirring (fig.c) to run the stirrer for about 10-15 minutes at the maximum pressure available.

Determine the suitable driving gear and throttle (350-540 rpm), turn on the ventilation fan, when arriving at the target, turn on the delivery valves quickly to do the spraying.

When the chemical liquid is sprayed over, you should turn off the powers of the fan and the pump, change the machine to transportation state, drive to the water sources and refill water and chemicals.

Note:

When stop spraying, make sure firstly lift up the pressure relief handle of the pressure regulator, then close all the outlet valves,and then disengage the tractor power take-off.

The nozzle numbers and spray angles can be adjusted according to different growth forms, different heights and thickness of fruit trees. The air deflection plates can also be adjusted to get optimum spray.

The distribution volume should be adjusted by regulating the work pressure, changing the size of nozzle, or driving speed.

There is a spare outlet tap (G 1/2") on the pressure regulator. If connected with a spray gun, you can wash the machine, or other implements, vehicles and livestock sheds, etc.

7.Maintenance

1．Daily inspection and maintenance before treatment

Check the tyre pressure, if air leaked, refill or repair.

Check all fasteners on the machine, if any are loose, tighten them timely.

Check oil level in the diaphragm pump and multiplier, if lack of oil, refill timely.

Check whether the shift gear of the fan is engaged. If engaged, switch to the neutral position

Check whether any of the nozzles are lost or damaged, if lost or damaged, replace timely.

Check whether any residues in the chemical tank, if any, drain out.

Clean the filter cartridge and tank strainer, clean them if needed.

2．Change lubricating oil regularly

After accumulated working for 100 hours, should drain out the oil from the pump and replace clean oil (SAE 30). Subsequently, for each 300 working hours, make replacements.

After accumulated working for 50 hours, should drain out the gear oil from the multiplier and replace clean gear oil (SAE 90). Subsequently, for each 500 working hours, make replacements.

3．Cleaning and maintenance

At the end of each treatment, switch the handle of 3-way ball valve to the circuit washer position (Fig b), run the pump to rinse the chemical tank and the circuit completely, and then discharge all the residues in the whole system.

Note: Do not discharge the residues of washing in the environment without precautions. Distribute the residues in the field or on the crops where they won't cause any damage.

Then lift up the pressure relief handle and loosen the pressure adjustment hand wheel of the regulator and put the machine in a safe place.

Regularly clean the suction filter and the nozzle filters. If the water has impurities, make cleanings more often.

After one seasonal use, wash the machine thoroughly inside and out, clean and air it, store the machine in a garage dry and closed, away from acids, alkalis and other chemicals.

For questions relating to the pump, please read the pump manual carefully.

Table of Programmed Maintenance

Operation	8H	50H	300H	Season end
Check the level and state of the oil	0			
Check the accumulator pressure		0		
Check the suction (hoses, pipes, unions)		0		
Check and clean the suction filter	0			
Check the pump fixing feet and screws in good state		0		
Check the diaphragm and the oil and change if necessary			X (1)	X (2)
Check the suction / delivery valves			X	X
Check the pump screws and bolts are tight				X
Check and clean the nozzles and the anti-drip diaphragm	0			
Check the wear of the nozzles			0	
Check the hydraulic oil level		0		
Check any failures or cracking of the welds, especially on the herbicide booms				0
Grease the articulated joints and the wheel hubs		0		
Check the tire pressure		0		

Note: 0 Operation to be carried out by the operator
X Operation to be carried out by a specialized technician or in an authorized workshop
(1) First oil change
(2) Change oil and at the same time the diaphragm.

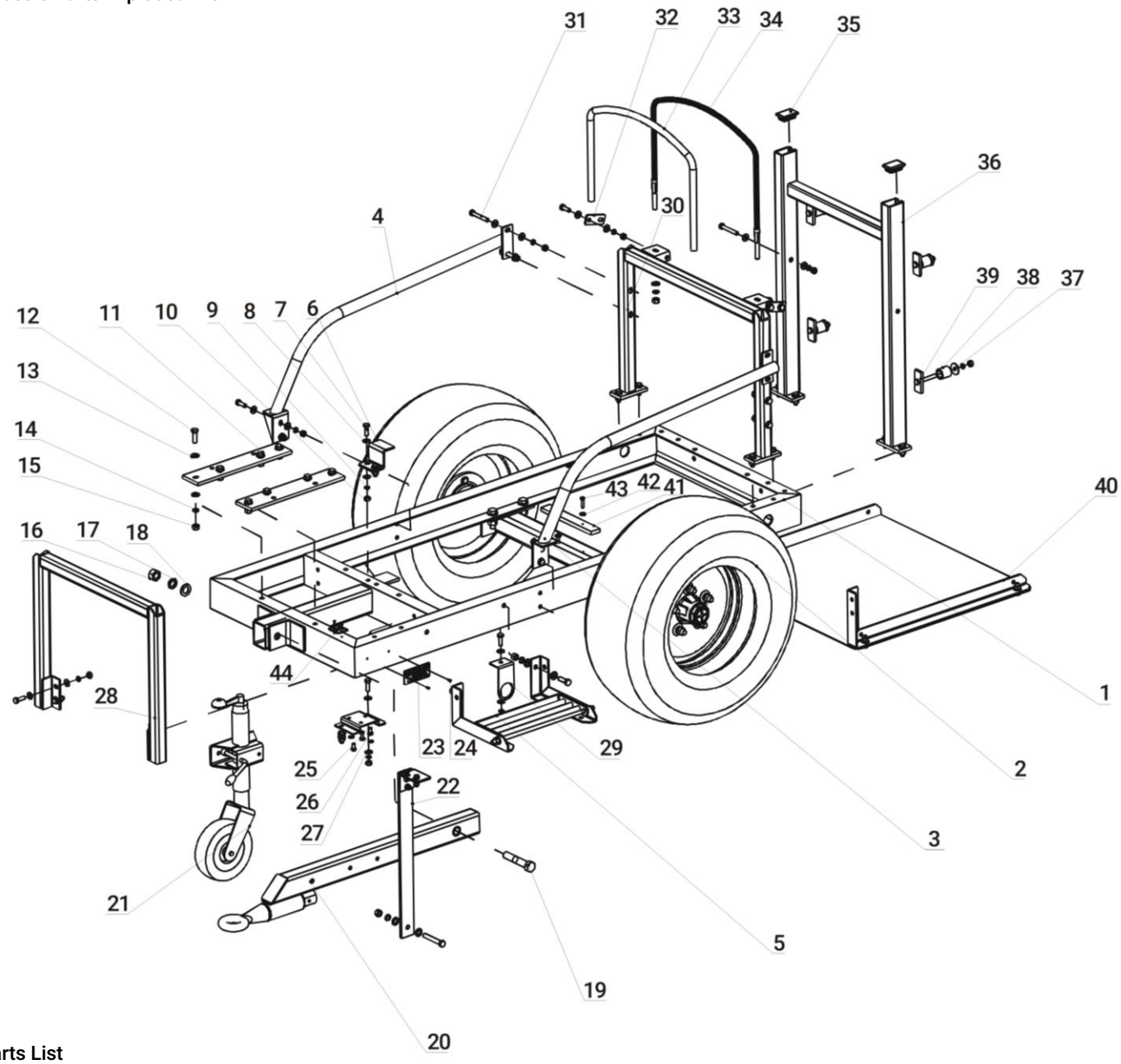
8.Trouble Shooting

Common Faults and Causes and Solutions

Faults	Causes	Solutions
Pump does not charge or discharges little	Air leak in the suction circuit	Inspect all the joints if all the gaskets are in good state and tighten them
	Circuits blocked by foreign matters	Inspect and clear
	The valve slices of pump inlet and outlet valves stuck or worn	Inspect and replace (*)
	Valve spring broken	Replace spring (*)
	Suction filter clogged	Clean filter screen
The pump doesn't reach the set pressure	Foreign matters into the regulator (between valve slice and valve seat)	Remove foreign matters (*)
	Regulator spring broken	Replace spring (*)
	Regulator piston stuck	Remove and grease it (*)
	Low pump speed	Speed up to correct rpm. (350-540 rpm)
	Nozzles used are worn or have too big orifices	Replace
Excessive vibrations at delivery	Pressure accumulator discharged or incorrect air pressure	Bring the air pressure back up to the right value (see pump manual) (*)
	Pressure accumulator diaphragm broken	Replace (*)
Water in the oil	Breakage of diaphragms	Inspect and replace (*)
	Diaphragm gland loose	Inspect and tighten (*)
	For above two cases, must drain out the oil and water mixture and clean the pump inside completely. Suggest to inspect the work diaphragm for every 100 working hours, and change the diaphragm for every 300 hours so that to avoid the liquid entering the pump and causing damages of the components.	
Note: (*) to be carried out by a specialized technician or in an authorized workshop.		

9.Exploded View & Parts List

Chassis Parts Exploded View

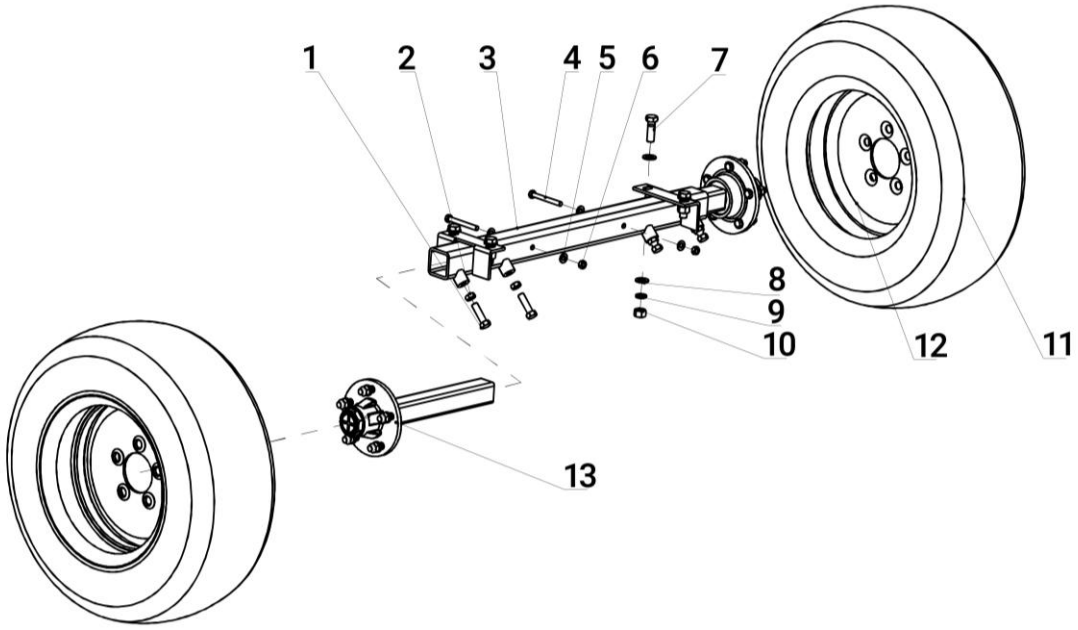


Parts List

No.	Part Name	Qty	No.	Part Name	Qty
1	Frame Weldment	1	23	Nameplate	1
2	Wheel Assembly	1	24	Blind Rivet 4#16	4
3	Left Baffle Welded Pipe	1	25	Filter Fixing Plate	1
4	Right Baffle Welded Pipe	1	26	Hex Bolt M8×16	3
5	Foot Pedal Bracket Assembly	1	27	Flat Washer 8	3
6	Front Tank Press Plate	1	28	Front Baffle Weldment	1
7	Hex Bolt M10×30	27	29	Water Outlet Switch Fixing Plate	1
8	Flat Washer 10	70	30	Rear Baffle Weldment	1
9	Spring Washer 10	39	31	Hex Bolt M10×70	8

No.	Part Name	Qty	No.	Part Name	Qty
10	Hex Nut M10	39	32	Reinforced Rear Baffle Connecting Plate	2
11	Liquid Pump Fixing Plate	2	33	Tank Pull Tube Weldment	1
12	Hex Bolt M12×35	10	34	Pull Tube Protective Sleeve	1
13	Flat Washer 12	20	35	End Cap	2
14	Spring Washer 12	10	36	Rectangular Tube Weldment	1
15	Hex Nut M12	10	37	Large Flat Washer 10	4
16	Hex Bolt M20×110	1	38	Spacer Sleeve	4
17	Flat Washer 20	2	39	Bolt Welded Part	4
18	Spring Washer 20	1	40	Rear Guard Plate Assembly	1
19	Hex Nut M20	1	41	Rubber Shock Absorbing Strip	1
20	Towing Hitch Assembly	1	42	Flat Washer 5	2
21	Trailer Jack Bracket	1	43	Self-tapping Screw ST3.5×13	2
22	Pressure Regulator Bracket Assembly	1	44	3-Way Handle Operation Sign	2

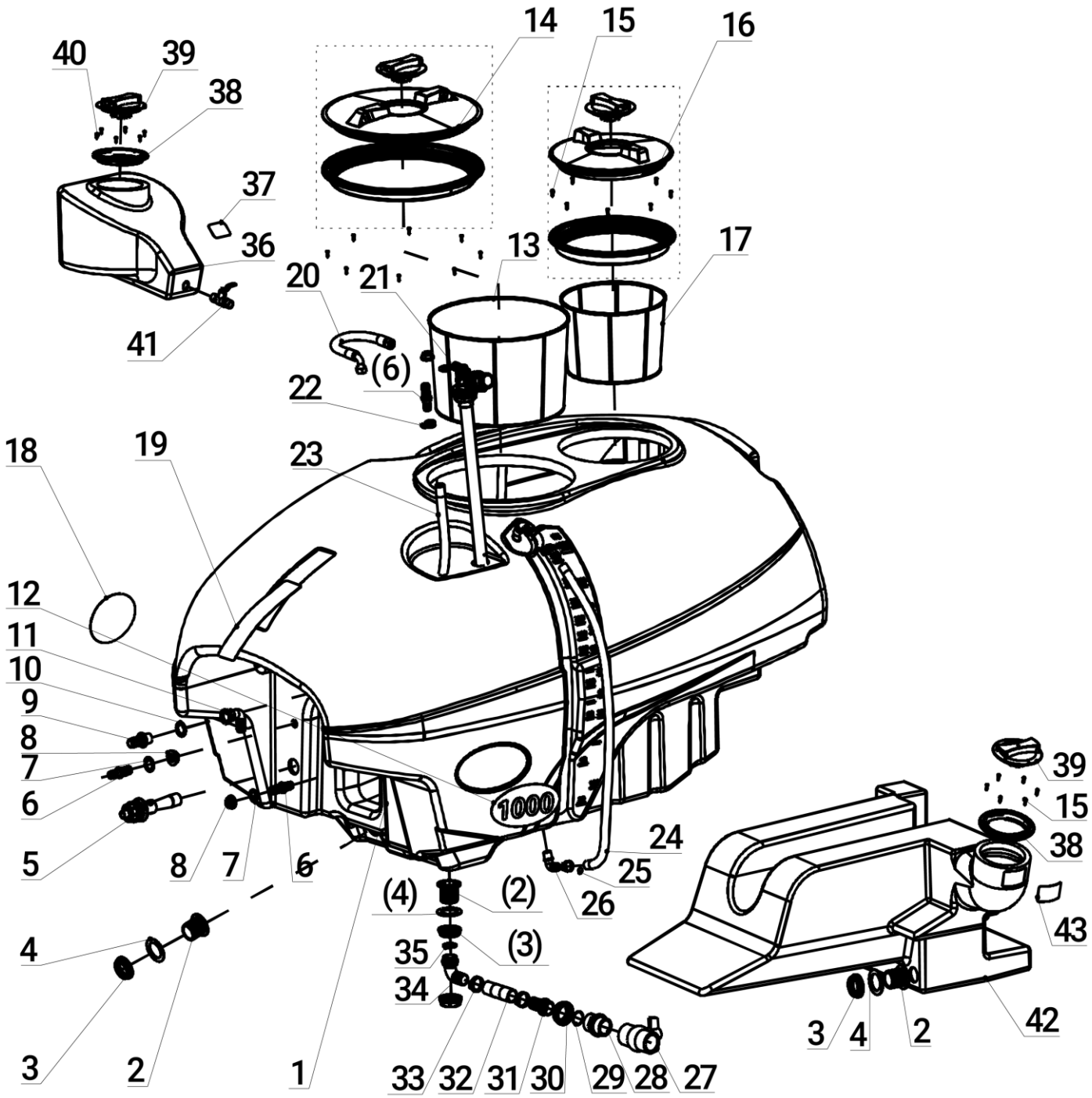
Wheel Assy Exploded View



Parts List

No.	Part Name	Qty	No.	Part Name	Qty
1	Hex Bolt M14×50	4	8	Flat Washer 16	8
2	Hex Nut M14	4	9	Spring Washer 16	4
3	Fixed Shaft Tube Weldment	1	10	Hex Nut M16	4
4	Hex Bolt M10×90	2	11	Tyre	2
5	Flat Washer 10	4	12	Rim	2
6	Hex Nut M10	2	13	Half Shaft Assembly	2
7	Hex Bolt M16×50	4			

Tank Components Exploded View

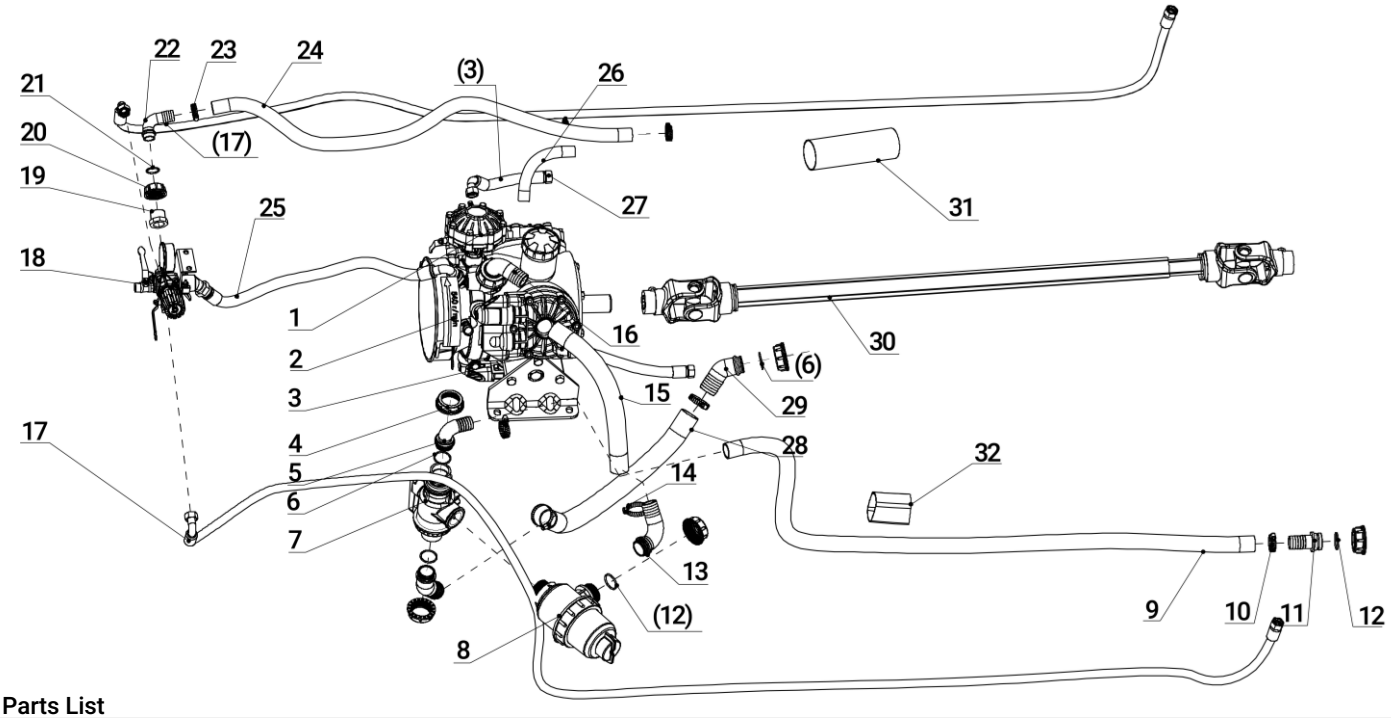


Parts List

No.	Part Name	Qty	No.	Part Name	Qty
1	Main Chemical Tank	1	23	Internal Chemical Adding Hose	1
2	Water Outlet Connector	2	24	Liquid Level Transparent Tube	1
3	G1/2 Lock Nut	2	25	Liquid Level Float Ball	1
4	Water Outlet Seal Gasket	2	26	Liquid Level Elbow Connector	2

No.	Part Name	Qty	No.	Part Name	Qty
5	Pressure Agitator	1	27	G1/2 Water Outlet Switch	1
6	G1/2 Connector	3	28	Directional Valve Connector	1
7	G1/2 Connector Seal Gasket	3	29	O-Ring (Inner Dia.) 30×3	1
8	G1/2 Lock Nut	3	30	G1/2 Inlet & Outlet Nut	2
9	Return Water Connector	1	31	Water Inlet Elbow (Φ28.5)	1
10	Return Water Connector Seal Gasket	1	32	Main Tank Drain Transparent Tube	1
11	Return Water Elbow Connector	1	33	Hose Clamp 25-38	2
12	1000L Volume Label	1	34	Water Outlet Elbow (Φ28.5)	1
13	Water Tank Filter Screen 400	1	35	O-Ring (Inner Dia.) 33.5×2.65	1
14	Water Tank Cap Assembly	1	36	Hand Washing Tank	1
15	Self-tapping Screw ST3.5×13-C	22	37	Hand Washing Tank Label	1
16	Water Tank Cap Assembly	1	38	Water Filler Cap Retaining Ring	2
17	Water Tank Filter Screen 302	1	39	Water Filler Cap Assembly	2
18	Tank Label	1	40	Self-tapping Screw ST3.5×8-C	6
19	Main Tank Label 2	1	41	Water Outlet Switch	1
20	Hydraulic Agitator Pipe Assembly	1	42	Cleaning Tank	1
21	Mixing Chemical Injector	1	43	Cleaning Tank Label	1
22	Hose Clamp 16-25	4			

Plumbing System Exploded View



Parts List

No.	Part Name	Qty	No.	Part Name	Qty
1	GMB130 Diaphragm Pump	1	17	Outlet Nozzle Assembly for Pressure Regulating Valve	2
2	Max Rotation Speed Marker	1	18	RM40YF Remote Control Pressure Regulating Valve	1
3	Hydraulic Agitation Pipe Assembly	2	19	Adapter Fitting	1
4	G1½ Water Inlet & Outlet Nut	5	20	G1 Nut	1
5	Water Outlet Elbow (Ø28.5)	1	21	O-Ring 23.5×2.65	1
6	O-Ring (ID) 30×3	2	22	25 Bevel Elbow Connector	1
7	3-Way Diverter Valve	1	23	Hose Clamp 22-32	2
8	GLQ200 Filter	1	24	Main Chemical Tank Return Transparent Tube	1
9	Transparent Outlet Tube for Cleaning Tank	1	25	Pump Water Outlet Pipe Assembly	1
10	Hose Clamp 25-38	2	26	Safety Valve Outlet Transparent Tube	1
11	Water Inlet Bevel Connector (Ø28.5)	1	27	Hose Clamp 16-25	2
12	O-Ring (ID) 33.5×2.65	3	28	Main Chemical Tank Outlet Transparent Tube	1
13	Water Outlet Elbow (Ø35)	1	29	Main Chemical Tank Outlet Connecting Elbow	2
14	Hose Clamp 32-44	4	30	Universal Joint Coupling	1
15	Transparent Pump Suction Tube	1	31	Pipe Sleeve 1	1
16	Water Outlet Elbow	1	32	Pipe Sleeve 2	1

WARRANTY INFORMATION: Please refer to our website for detailed warranty conditions and coverage.
For the most up-to-date and comprehensive warranty information, visit **www.tmgindustrial.com**