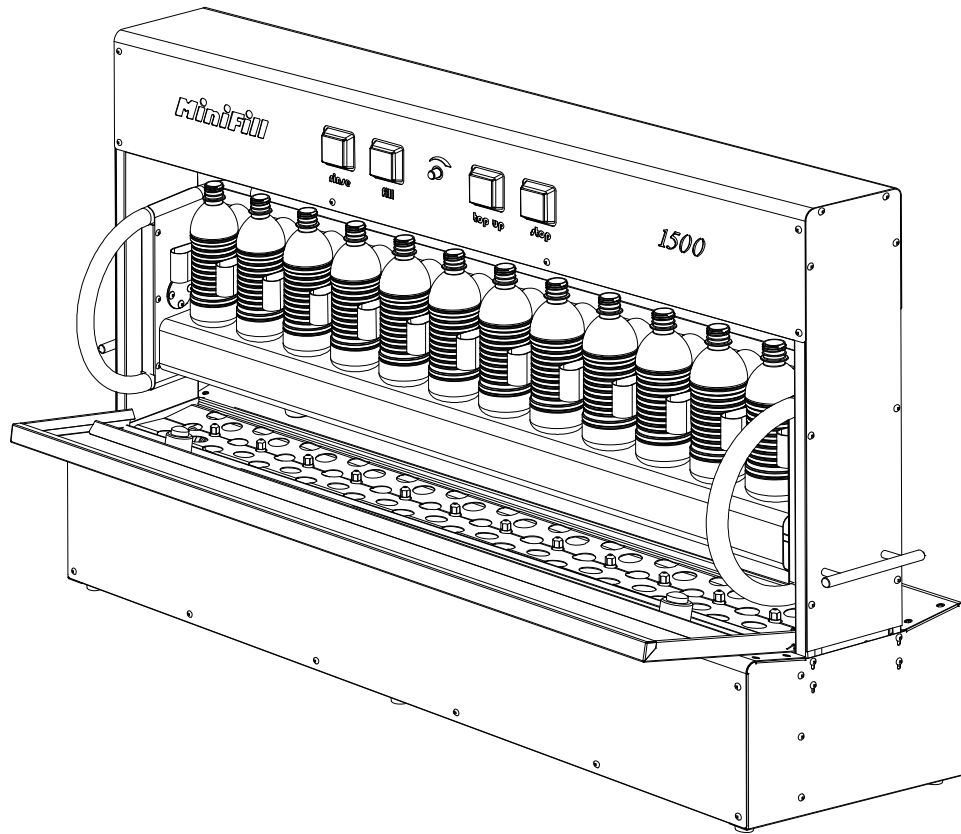


# Precision Water Systems

## MINIFILL 1500-S2



## Owners' Guide

**Model: MINIFILL 1500**

Part No: 900011

Series: 002

Manufactured By:  
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**Please read this Owners' Guide  
completely before installing or  
operating your  
Precision Water Systems  
MINIFILL 1500 Small Bottle  
Rinse & Fill Station.**

*Specifications are subject to  
change without notice.*

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# Introduction

Congratulations on the purchase of your new Precision Water Systems (PWS) MiniFill 1500 small bottle rinse and fill system. When installed and maintained properly, your MiniFill 1500 will provide years of safe, trouble free service. It is important to observe and follow the safety and maintenance instructions carefully. If you have any questions or concerns regarding installation or operation of your MiniFill 1500 system, please contact your dealer.

Your MiniFill 1500 must be installed according to any Local or State Regulations.

# Records

Please record all of the important information below to assist you and the service centre in case there is any service work required in the future. All of the information is required to properly identify your MINIFILL 1500 system and will make servicing much easier. The information is located on the serial plate, which is located on the side of the MiniFill 1500 above the electrical connection.

**PWS Model:** MINIFILL 1500

**Series:**    *eg: 002*

**Serial Number:**        *eg: 0401812*

**Date of Purchase:** \_\_\_\_\_

## Warranty

- The warranty for your MINIFILL 1500 is one year on all electrical components.
- Stainless Steel parts are warranted for five (5) years. With this warranty it is the responsibility of the owner to properly maintain the MiniFill 1500 system. If there is any mis-use or abuse the warranty will be void.
- PWS does not warrant any transportation charges incurred to complete the repair. The owner is responsible for all shipping charges to and from the service centre.
- Warranty is void if the MiniFill 1500 is found to have been consumer damaged or misused, caused by acts of God, unauthorized alteration, repair or vandalism.

# Important Safety Precautions

When using electrical appliances, basic safety precautions should always be followed including the following:

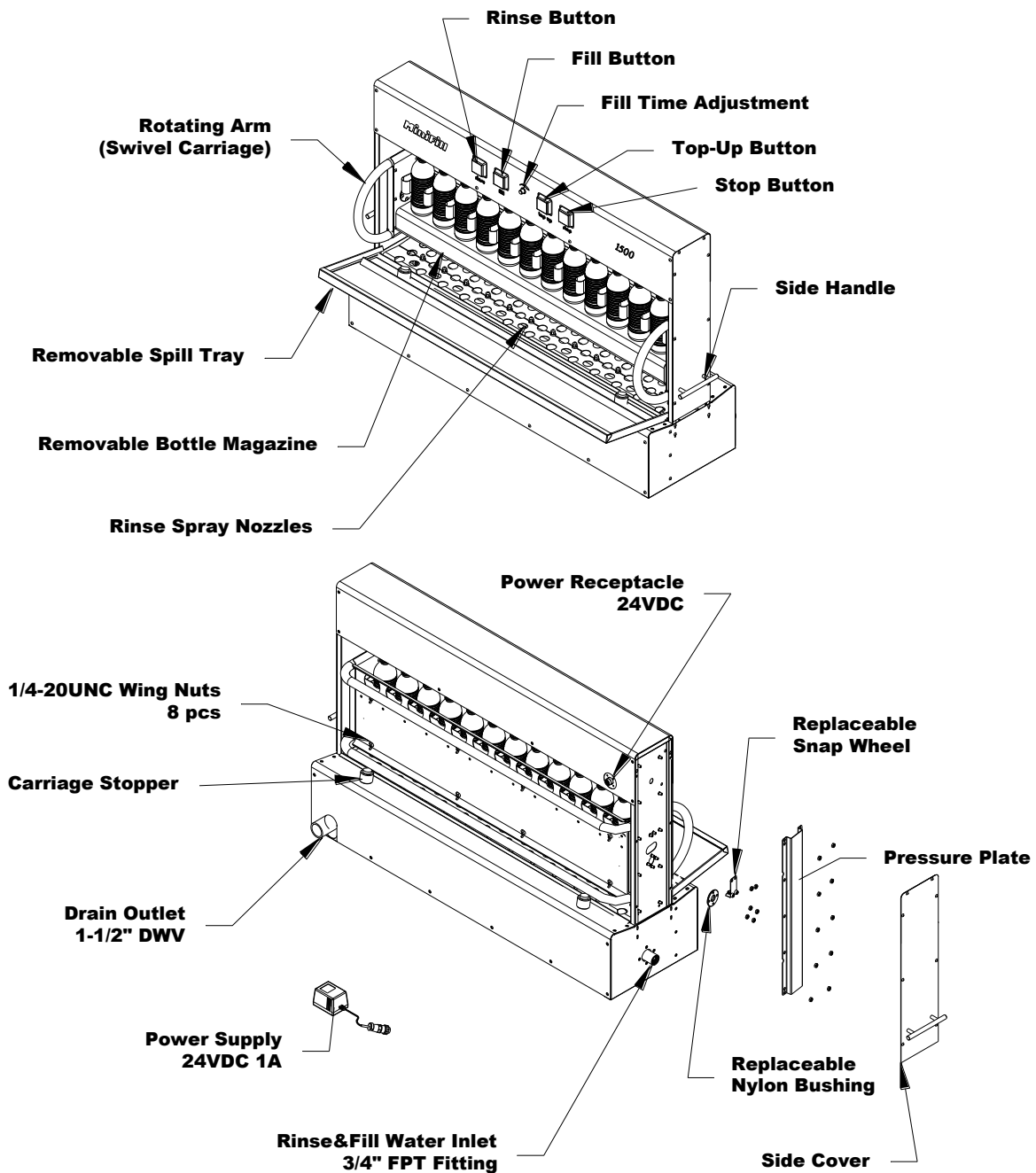
- 1. Read all instructions.**
- 2.** To protect against electrical shock do not immerse cords or plugs in water or other liquid.
- 3.** Close supervision is necessary when any appliance is used near children.
- 4.** Do not allow children to operate this appliance.
- 5.** Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions or has been damaged in any manner. Return appliance to the nearest service facility for examination, repair or adjustment.
- 6.** The use of accessory attachments not recommended by the appliance manufacturer may cause injuries.
- 7.** This appliance is intended for commercial use only.
- 8. Save these instructions.**

## Additional Safety Recommendations

- 1. Personnel should wear sterile gloves, hair net and mask at all times during the rinse, filling and capping operation.**

# Features

The MINIFILL 1500 small bottle rinse and fill system has been engineered from the ground up and includes the features shown in the diagrams below:



**Fig.1**

**MINIFILL 1500-S2 Main Parts & Features Diagram**

## Finding a Good Installation Location

Before installing your MINIFILL 1500, it is important to find a good location. Following the points listed below will provide the best location for your MINIFILL 1500 rinse and fill system.

1. There needs to be adequate room for good bottle flow. An area on the left of the MINIFILL 1500 is required to store clean bottles for filling. An area on the right side is required to cap, label and box filled bottles of water. Plan for bottle racks or pallets or whatever type of storage you will be using for storing boxes of small bottled water.
2. Plan for the plumbing requirements for the MINIFILL 1500. The **Pre-Installation Preparation** section in the **Installation** section of this guide explains the plumbing requirements in detail. The most critical component of the installation in regards to plumbing, is the floor drain location. A wall drain may be your only option. If a wall drain is used, be sure there is sufficient slope to follow local plumbing codes. Electrical power required is 110 VAC but power is supplied through a 24Volt DC transformer for safety reasons.
3. Good lighting is required to make sure the MINIFILL 1500 bottle rinse and fill system can be operated properly. Lighting may be added to an installation location easier than plumbing or floor drains.
4. An open area that can be kept clean and maintained is important when considering the location for your MINIFILL 1500 system. The installation location should not be near an overhead door where contamination could occur.
5. The MINIFILL 1500 should be away from the general traffic flow of your operation. By keeping the area isolated, it reduces the introduction of contaminants and makes it easier to keep the area clean.
6. Check with local codes to see whether a separate clean room is required for your small bottling operation.

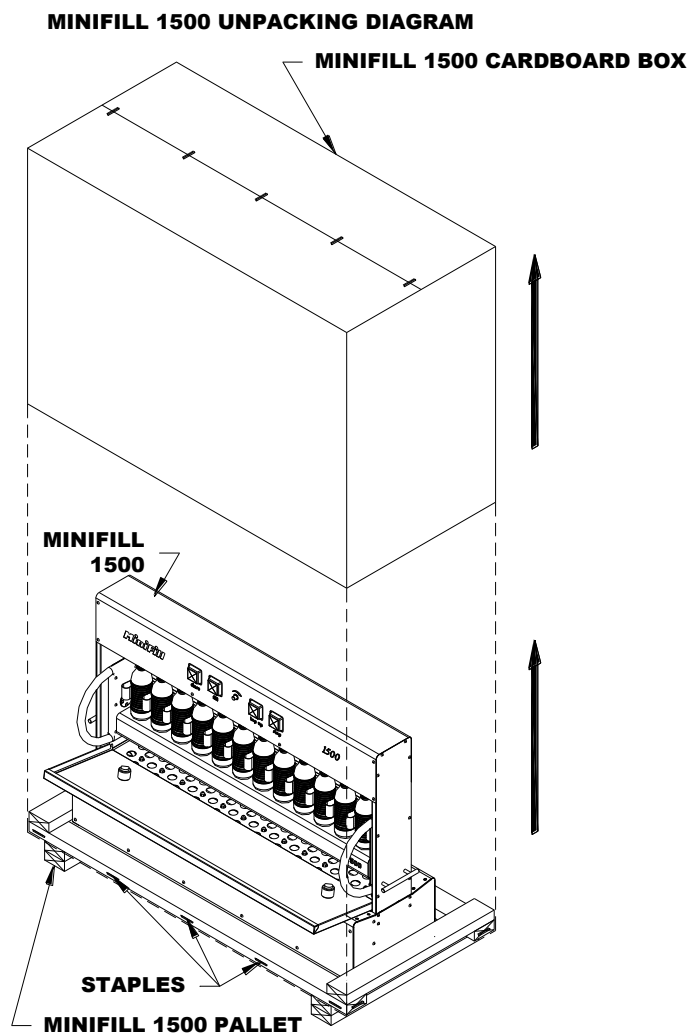


# Unpacking Your MINIFILL 1500

## MINIFILL 1500 Unpacking Diagram

Your MINIFILL 1500 has been shipped on a wood frame and is wrapped with cardboard, strapped and shrink-wrapped. Unpack the MINIFILL 1500 by:

1. Removing the staples/screws off the cardboard at the bottom and lift the cardboard off of the wooden pallet.
2. Remove stretch wrap material.
3. Remove the three bottle magazines from the side of the box. (option)
4. Remove the small box in which the electric capper is located. (option)
5. Remove the MiniFill 1500 and place on a countertop or table. Lift by handles located on each side of the MiniFill.
6. Bottles will be located in the bottle magazine and caps found in a plastic bag in bottom portion of tray.



# Assembly

1. MiniFill1500 comes assembled and ready to use.
2. 500mL magazine is already installed with bottles inserted
3. To change bottle magazines (optional) for filling specific bottle size refer to system preparation. (Figure 6, pg 14)
4. Remove capper from box and secure capping chuck (optional)
5. Unit is ready to be installed (see next section)
6. **NOTE: MiniFill 1500 is factory tested for operation and may show sign of use. Do not be concerned of signs of water on equipment.**

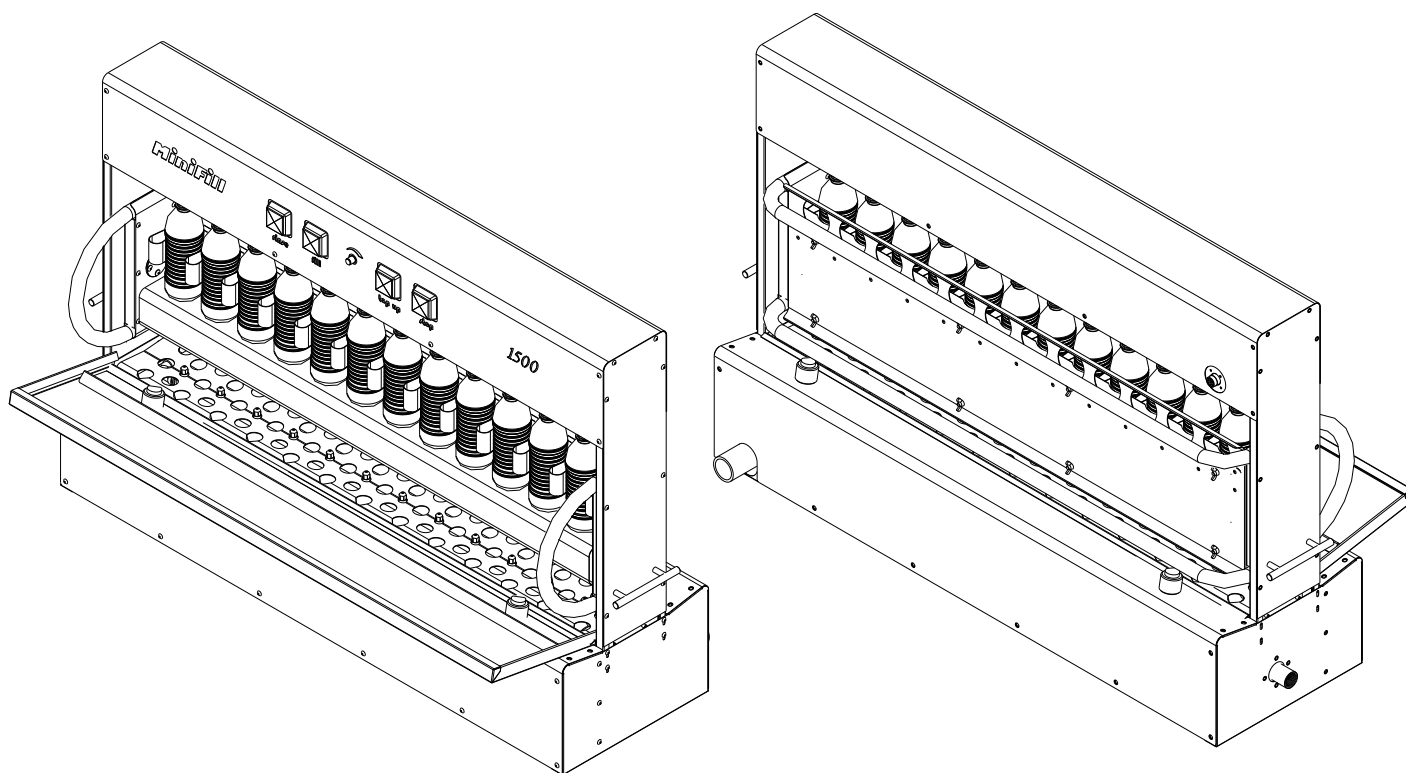


Fig.3

# Installation

## Pre-Installation Preparation

### Introduction

To ensure that installation of your MINIFILL 1500 can be completed as quickly as possible, it is best to have all plumbing fittings installed before your station arrives. Also to be considered is a 110VAC outlet in close proximity. All connections should be located so when your MINIFILL 1500 arrives, all you have to do is place it on a counter top or table, connect the plumbing and plug in the unit.

The MINIFILL 1500 should be installed according to local electrical and plumbing codes. If you are unable to install the station according to code, then have a plumber complete all connections for you. Electrically, the MiniFiller 1500 is designed with a 24V DC power supply keeping electrical away from the water rinse and fill nozzles.

## Pure Water and Rinse Connection

One water supply connection is required on the MINIFILL 1500-S2. It will feed both, fill and rinse systems.

**PLEASE NOTE! THE PUMP FROM YOUR BACK-END PURE WATER STORAGE SYSTEM MUST PROVIDE A MIN. 50-70 PSI OF LINE PRESSURE at 5 to 10 GALLONS PER MINUTE TO ENSURE PROPER RINSING AND FILLING WITH THE MINIFILL 1500-S2.**

**( BEFORE CONNECTING UNIT TO THE WATER OUTLET, PLEASE CHECK THE SPECIFICATIONS OF YOUR PRE-INSTALLED PUMP).**

## Drain Connections

One main drain connection is required for the MINIFILL 1500. Drain should be a solid 1-1/2" line located behind the system, drained to a suitable floor drain or in a manner, which meets local plumbing codes. The MINIFILL 1500 **Plumbing Diagram** below shows the dimensions for the location of the drain connections. The height of your counter will also determine your final plumbing requirements.

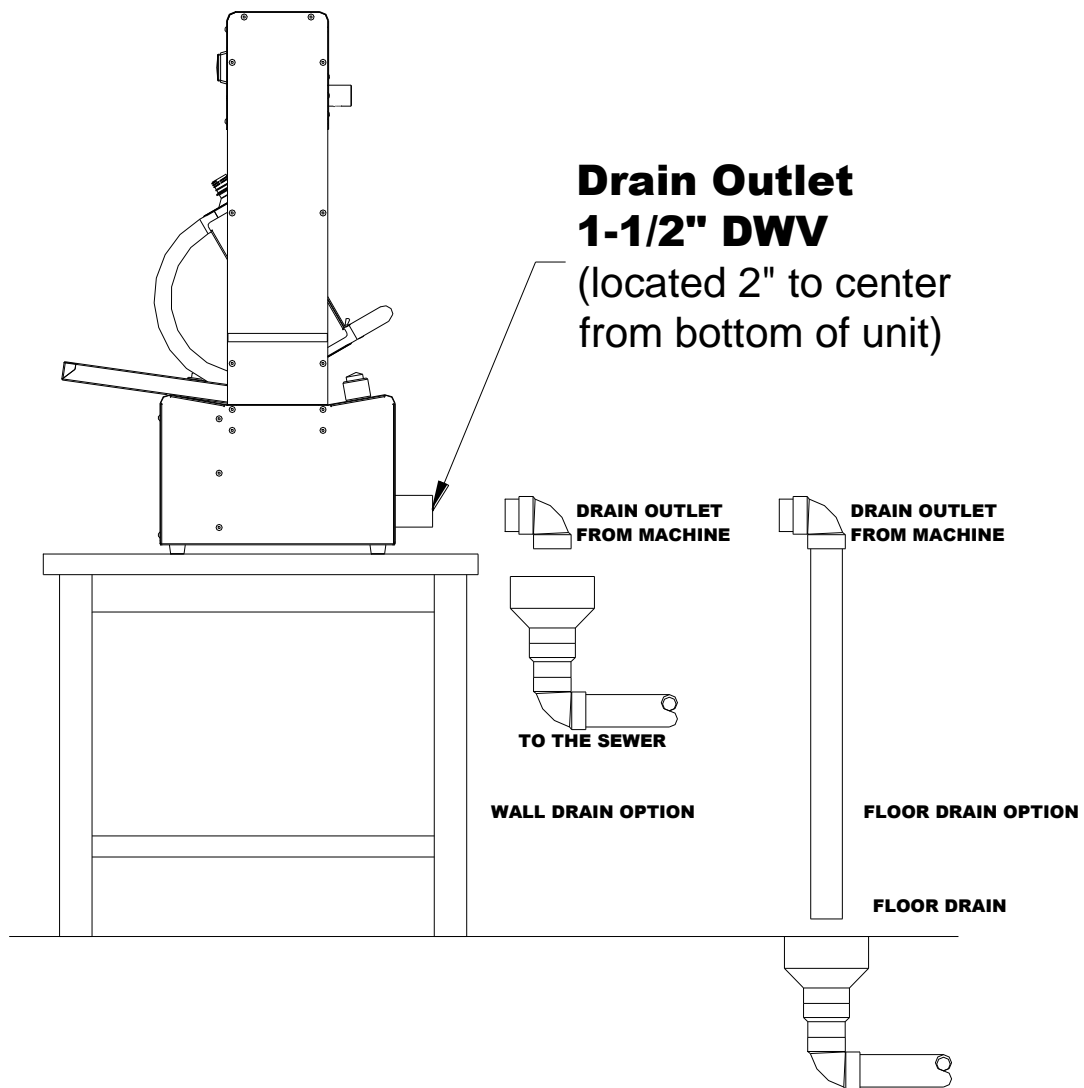
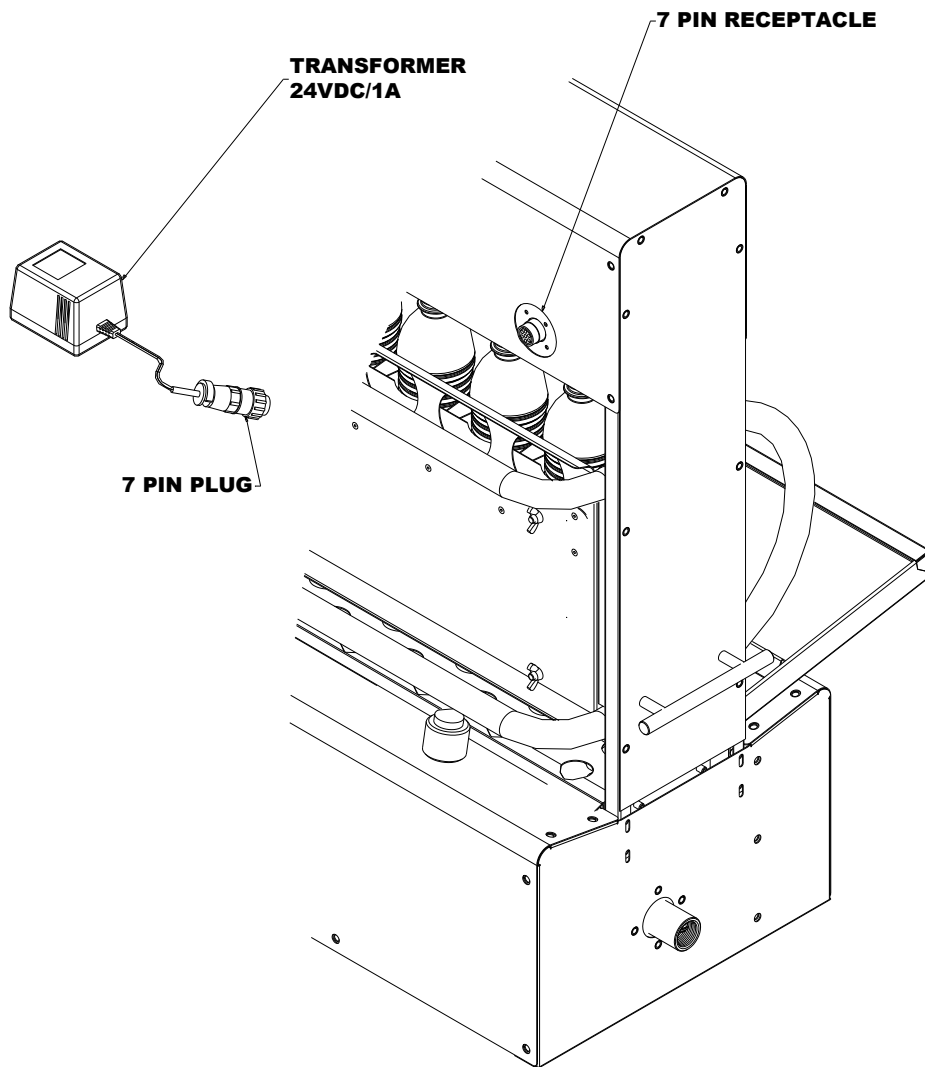


Fig.4

## Electrical Connections

The MINIFILL 1500 comes equipped with a 24-volt power source, which requires a standard 110VAC electrical outlet.



**Fig.5**

# Operation

**NOTE:** Read all parts of the Owners Guide before operating the MINIFILL 1500 system.

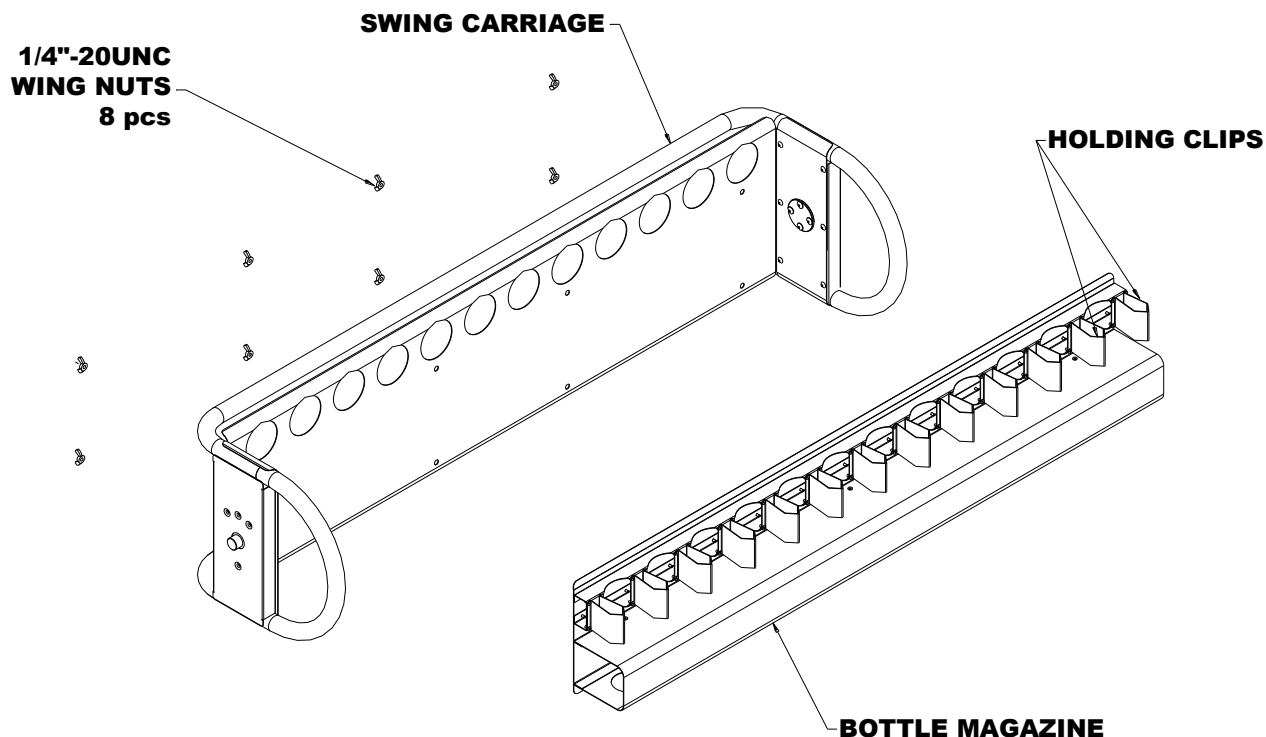
## Introduction

Care must be taken in rinsing and filling of small PET plastic bottles. Check with local regulations in regards to the insertion of ozone into the final water. The following operation steps are provided as a guideline to the user and may need to be adjusted to suit individual needs.

## System Preparation

### Changing Bottle Magazine

1. Depending upon the size of bottle you are filling, you will be required to position the proper magazine into place on the MINIFILL system. By removing 8 wing nuts located at the back of the system you can easily switch out the magazine.



**Fig.6**

### **INSERTING BOTTLES**

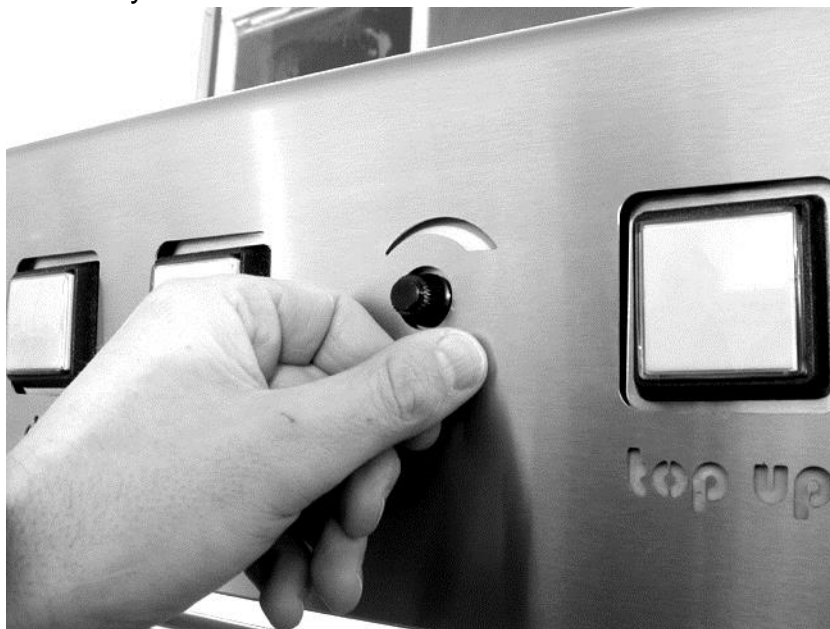
2. Each bottle is manually snapped into the magazine holder. Push the bottle in and down to secure.



**Fig.7**

### **ADJUSTING TIMER**

3. Depending upon the size of bottle you are filling you need to adjust the timer accordingly. Simply turn to the right for longer fill times. The timer range has been preset at the factory from 10 to 100 seconds.

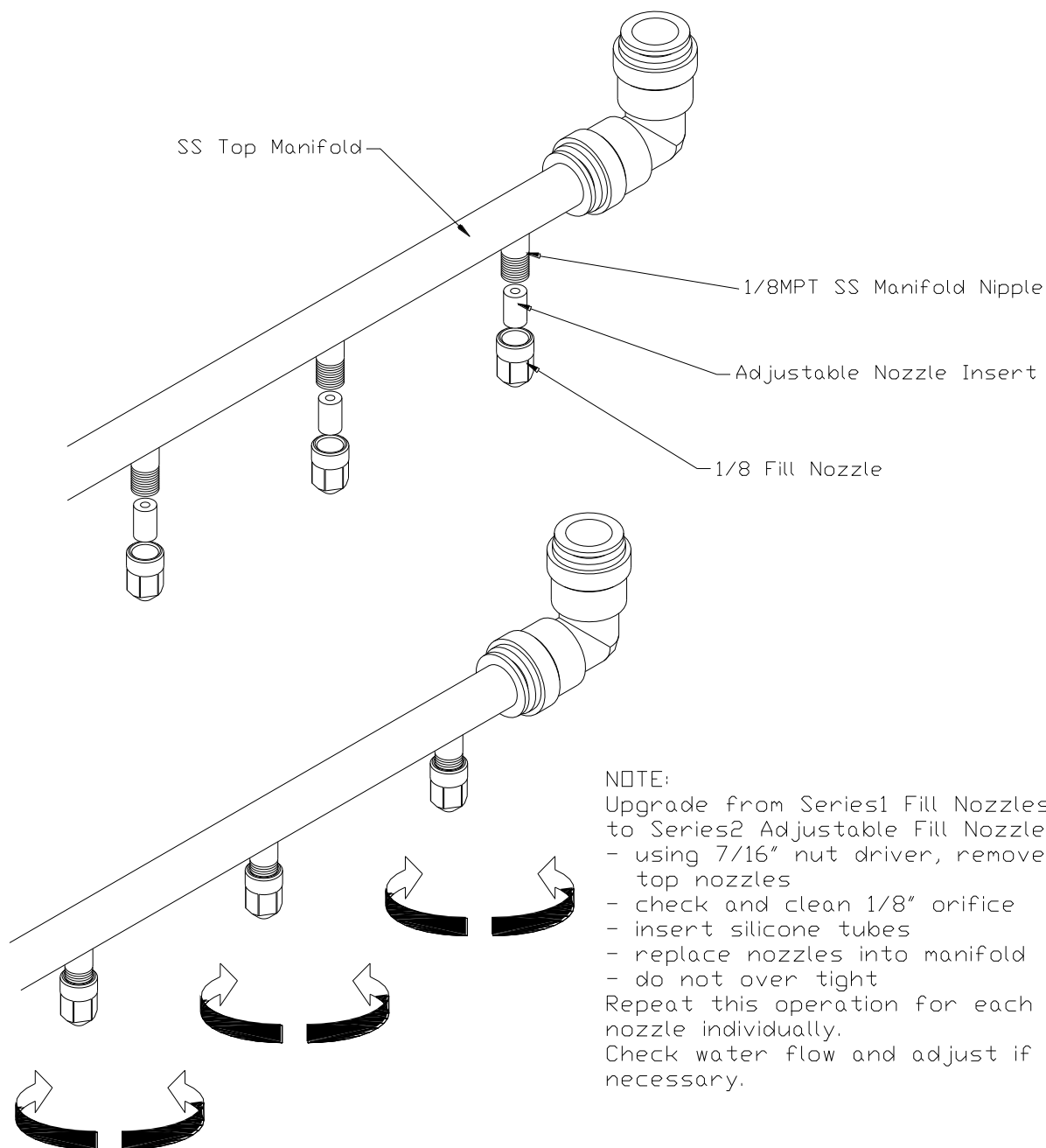


**Fig.8**

## ADJUSTING FILL NOZZLES ( OPTIONAL )

4. Check water flow. If necessary, adjust each nozzle individually by using a 7/16" nut driver. Repeat this operation a few times. A small difference of water levels between filled bottles is normal. Do not over tight nozzles.

# MiniFill 1500 - Series 2 Adjustable Nozzle System





**Fig.9**

## **ELECTRIC CAPPER (OPTIONAL)**

5. The electric capper can be used in two ways. Once the bottles are filled you, can rotate the arm forward and snap the bottle magazine into a 30-degree angled position. (Fig #10) Place the caps loosely on the bottles with your fingers and then tighten with electric capper. You can also remove the bottles from the magazine and follow the same procedure. (Fig #11)



**Fig.10**



**Fig.11**

# MINIFILL 1500 Operating Procedure

## Introduction

Operation of the MINIFILL 1500 follows the pattern of any assembly line. The process starts at one end and works to the other. Fill the bottle magazines with empty bottles. Start process by rotating the filled magazine of bottles with neck opening down. Push the Rinse button and hold for rinsing. Rotate magazine of bottles to its initial position with neck opening under the fill nozzles. Press the fill button. Adjust fill time if necessary. Push and hold Top-Up button to level water in all bottles. Rotate the filled bottle magazine and lock into a 30-degree angle position. Place caps manually and tighten to secure. Use the optional capper if available. Remove the bottles for labelling and packaging.

The operational steps are:

### Step 1: Placement of Bottles in Magazine



Fig.12

**Step2: Rotating Magazine for Rinsing**

After snapping the bottles into the magazine, rotate the magazine forward so the bottles are turned down. Manually rinse the bottles for a few seconds.



**Fig.13**

**Step 3: Rinsing the Bottles**

**Fig.14**

#### **Step 4: Return Magazine for Filling**

After the bottles are returned to their upright position, push the fill button.



**Fig.15**

#### **Step 5: Automatically Filling the Bottles**

Following the initial fill, you may need to adjust the timer. Turn timer clockwise for longer fill periods and counter clockwise to lessen fill times. A good fill level is approximately 95% of bottle. Use the top up button if required.



**Fig.16**

**Step 6: Placing Caps on Bottles**

Capping is easily done by spinning the cap on the bottle and using the optional capper to tighten the cap secure.



**Fig.17**

**Step 7: Capping Bottles**

If the cap is not tight, you can adjust the clutch located on the side of the electric capper.



**Fig.18**

### **Step 8: Storing Bottles**

Storage of the bottles can be in flat trays or full boxes. Shrink-wrap machines are also commercially available.



**Fig.19**

### **Step 9: Labelling Bottles**

Numerous sizes bottles can be filled using the MiniFill 1500 system. The MiniFill allows you to private label bottles for numerous applications. Ask us for a full marketing package on the private label business



**Fig.20**

## System Shut Down

When bottling is completed for the day, the following steps should be completed.

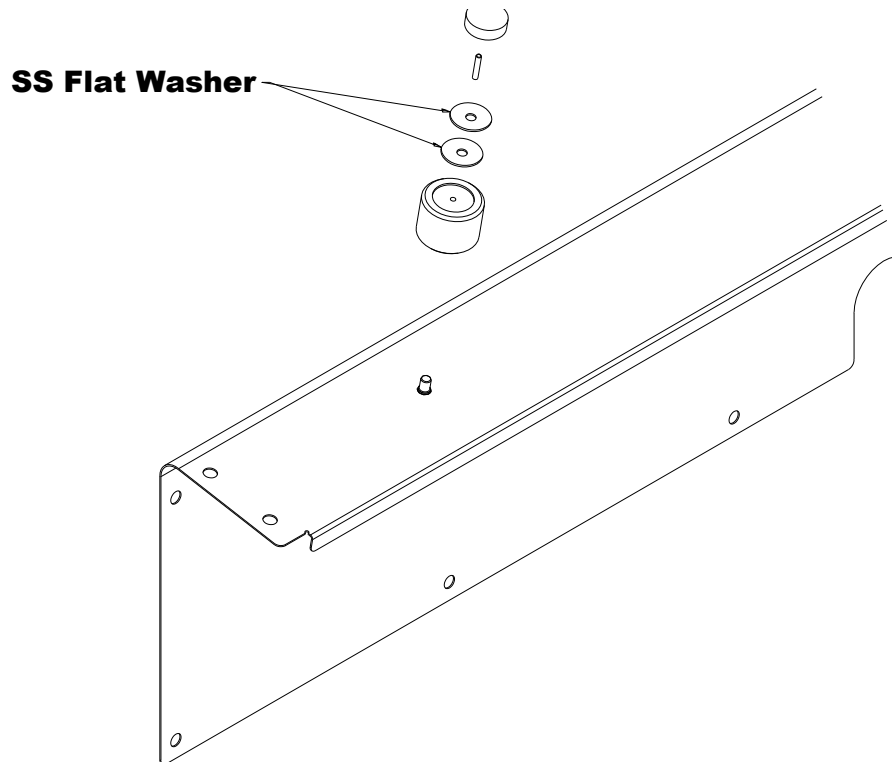
1. Remove bottle tray and wipe down tray and bottom of filler.  
**Note: Never use steel wool type scrubbers as they will contaminate the stainless steel and promote rust.**
2. Wipe down excess water spills on all surfaces.

## Troubleshooting

**Caution! Always Disconnect all power supplies before completing any Troubleshooting.**

PROBLEM	CAUSE
A) Water does not dispense from either fill or rinse nozzles or both.	<ol style="list-style-type: none"><li>1. Check power supply at 110 VAC source and after transformer for 24 VDC output.</li><li>2. Buttons should light up at pushing.</li><li>3. Check Water Solenoids. Hear the “click” sound for closing and opening of valves.</li><li>4. Check water line pressure.</li><li>5. Check main water supply</li></ol>
B) Water is not dispensing out of one nozzle.	<ol style="list-style-type: none"><li>1. Check for a blockage in nozzle.</li><li>2. Remove nozzle tip and clean.</li></ol>
C) When filling, the stream of water coming from nozzle hits areas outside of the bottleneck opening.	<ol style="list-style-type: none"><li>1. Position bottle properly by pushing in and down into the magazine holder.</li><li>2. Adjust or rotate bottom manifold for proper alignment</li><li>3. Adjust Carriage Stoppers by adding or removing spacers (SS flat washers) Fig.21.</li><li>4. Check for magazine alignment with top nozzles in vertical position.</li></ol>
D) Water dispenses without pushing buttons.	<ol style="list-style-type: none"><li>1. Debris in solenoid valve is holding the valve open. Remove solenoid from solenoid valve and check for blockage.</li><li>2. Remove blockage and/or flush valve with clean water.</li></ol>
E) Bottles are loose in magazine holder.	<ol style="list-style-type: none"><li>1. Remove bottle magazine from swivel carriage Fig.6.</li><li>2. Using a rubber hammer, tap gently the holding clips until expanding to a proper holding size.</li><li>3. Push empty bottle into magazine openings and check holding strength.</li><li>4. Adjust again if necessary.</li></ol>

<b>F) Swivel Carriage is making a “squeaking” noise.</b>	<ol style="list-style-type: none"> <li>1. Remove side covers and pressure plates Fig.1.</li> <li>2. Check Snap Wheel Mechanism and Nylon Bushing.</li> <li>3. Add Silicone Vaseline on all rotating parts.</li> </ol>
<b>G) Swivel Carriage is not holding into the “30deg” position.</b>	<ol style="list-style-type: none"> <li>1. Remove side covers and pressure plates. Fig.1.</li> <li>2. Check Snap Wheel Mechanism.</li> <li>3. Replace if necessary</li> </ol>



**Fig.21**

**Contact any Precision Water Systems Service Centre to correct any problems with your MiniFill 1500 that is not covered in this guide.**

To locate a Service Centre in your area contact the manufacturer at:

Precision Design & Manufacturing Inc.

9024 - 100<sup>th</sup> Street

Westlock, Alberta, Canada

T7P 2L4

<http://www.precisionwaterproducts.com/>

e-mail: [info@precisioncanada.com](mailto:info@precisioncanada.com)

Phone: (780) 349 4933

FAX: (780) 349 4957



## Optional Accessories

**All Options are available from your  
Precision Water Systems Dealer or  
Service Centre**

### **ELECTRIC CAPPER**

Our electric capper helps the capping process so it is as effortless as possible. The special cap chuck holds both the flat cap and the sports cap.

### **BOTTLE MAGAZINES**

Easy to change bottle magazines 355mL (12oz) 1L (32oz) or 1.5L (36oz)

### **OZONE TREATMENT KIT**

Turn Key ozone systems designed for small bottle rinse and fill applications.

### **WATER TREATMENT KIT**

Reverse Osmosis water treatment packages designed for easy operation and maintenance.

# Specifications and Technical Information

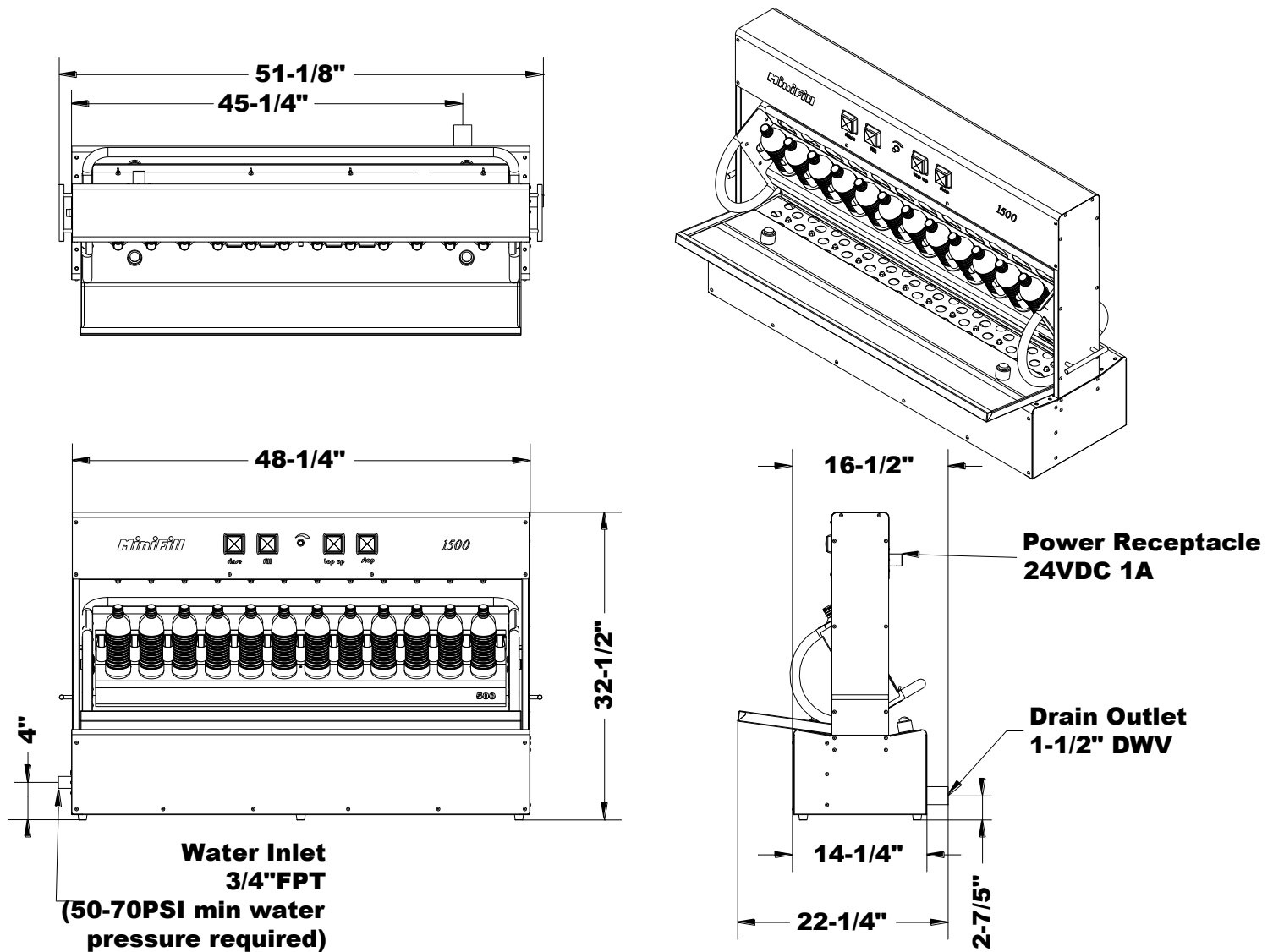


Fig.22

MiniFill 1500-S2 Specifications Diagram

For all replaceable parts please consult the Replacement Parts Manual

# Wiring List

A manual wire clipper machine with 12 stations. The machine is grey and has a control panel at the top with the brand name 'Miniclipper' and the model number '2700'. The control panel also features several indicator lights and a power switch. The machine has a large, curved handle on the left side and a collection tray at the bottom.



## Warranty Registration

## IMPORTANT!