

# **DIRECT TREATER AIR**



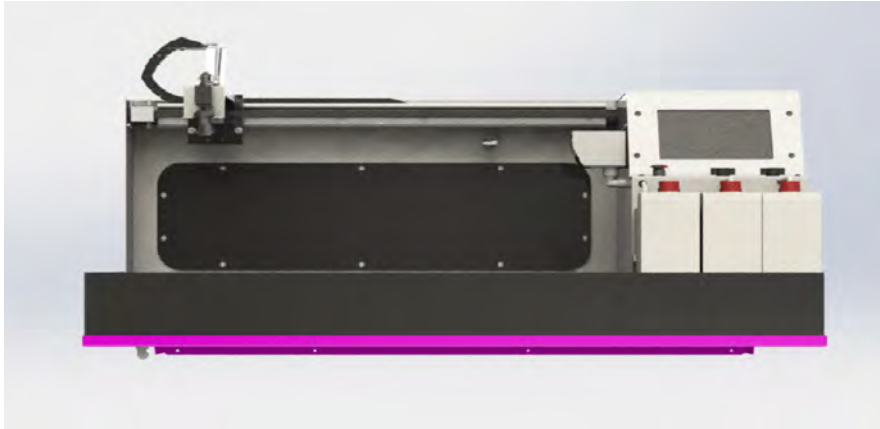
 **OmniPrint**<sup>®</sup>  
International  
Simplicity. Profitability.

**User Manual**  
Version 2.0

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# The Direct Treater Air



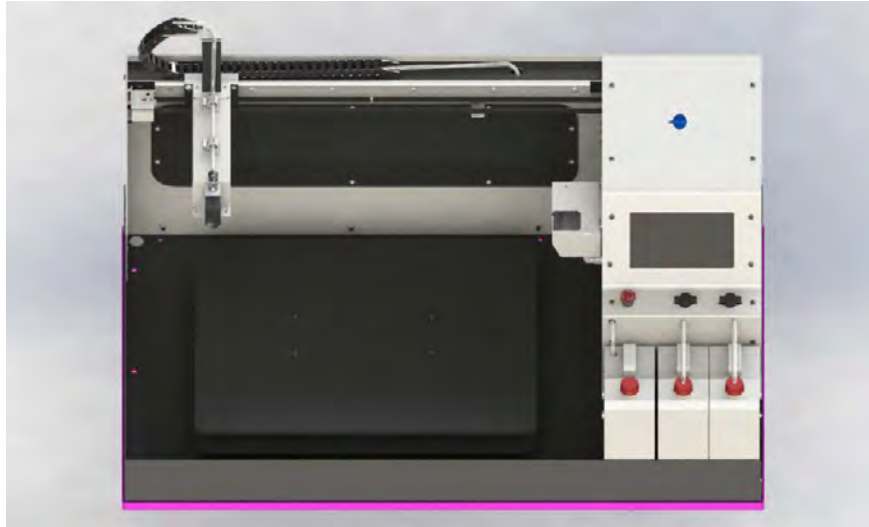
Congratulations on purchasing your Direct Treater Air. We have engineered the DTA to the highest industry standards, ensuring you get the most consistent and efficient pretreatment machine.

Designed with quality parts that are durable and easily serviceable, you will find the Direct Treater Air to be a critical component for your DTG workflow. With exclusive features like foot pedal activated spray and convenience features designed for ease of use, we are committed to providing you with class leading industrial machines designed with simplicity and profitability in mind!



# What's Included In your Direct Treater Air Pretreatment Machine Package:

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[1] Direct Treater Air Pretreatment Machine



[1] Power Cord(110V)



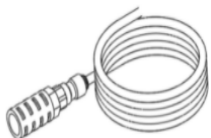
[1] Foot Pedal + Input Cable



[1] 800067(Gold) Nozzle



[1] Waste Tube



-Extension kit for external container:

[1] Extension Tube

[1] Filter

# Anatomy of a Direct Treater Air Pretreatment Machine

Fig. 1 - Top View of Direct Treater Air Pretreatment Machine

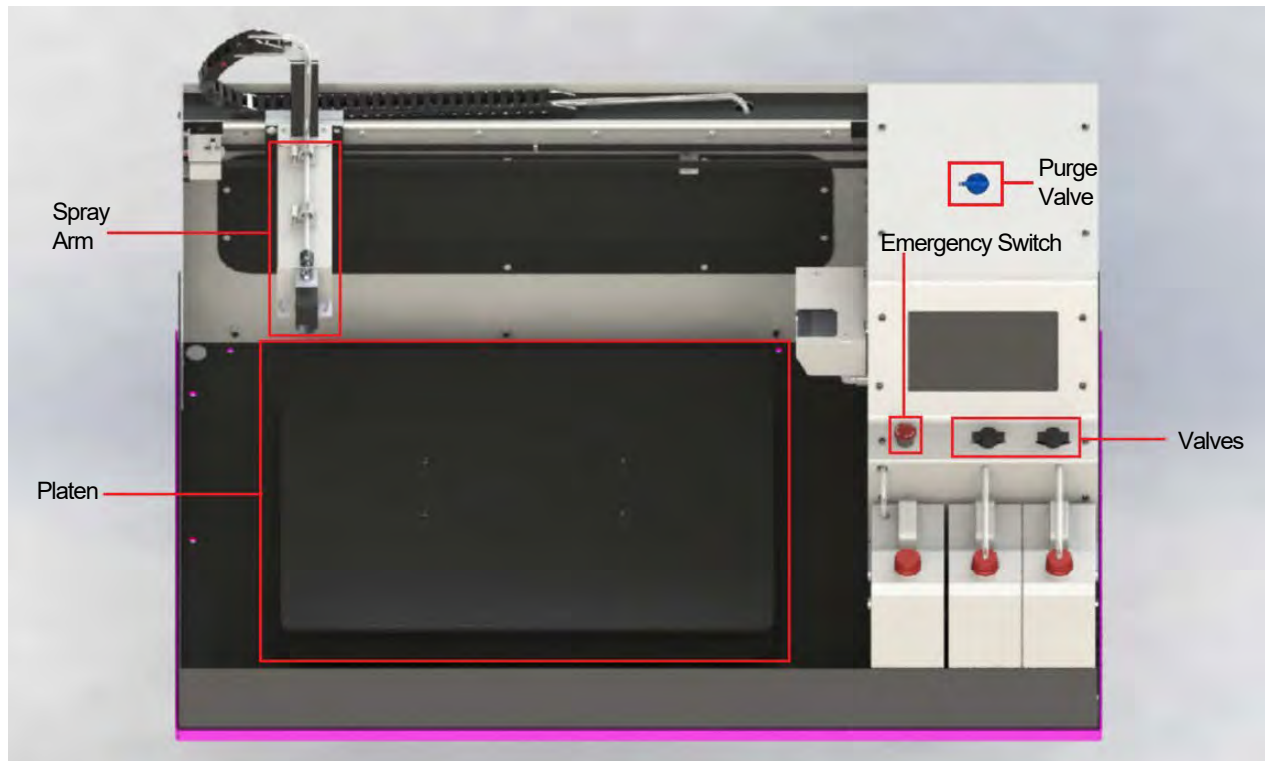
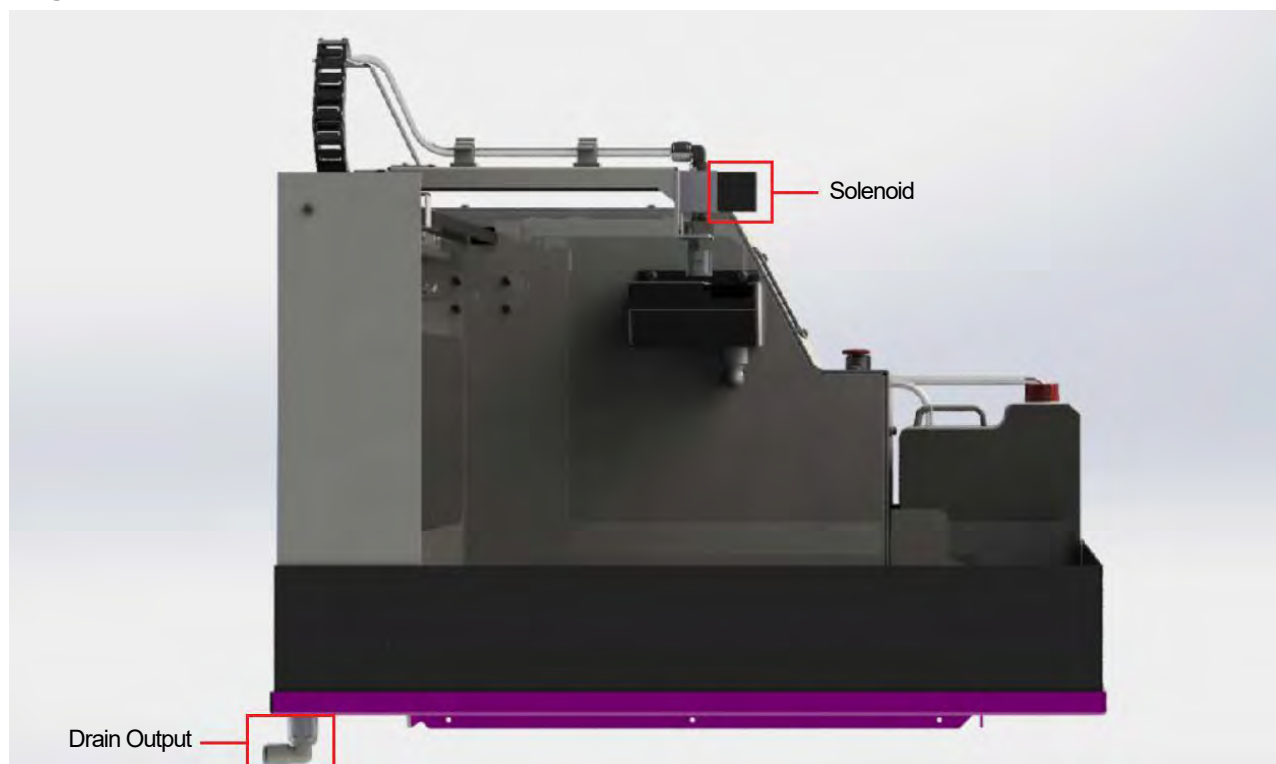


Fig. 2- Side View of Direct Treater Air Pretreatment Machine





# Anatomy of a Direct Treater Air Pretreatment Machine (Cont'd)

Fig. 3 - Front View of Direct Treater Air Pretreatment Machine

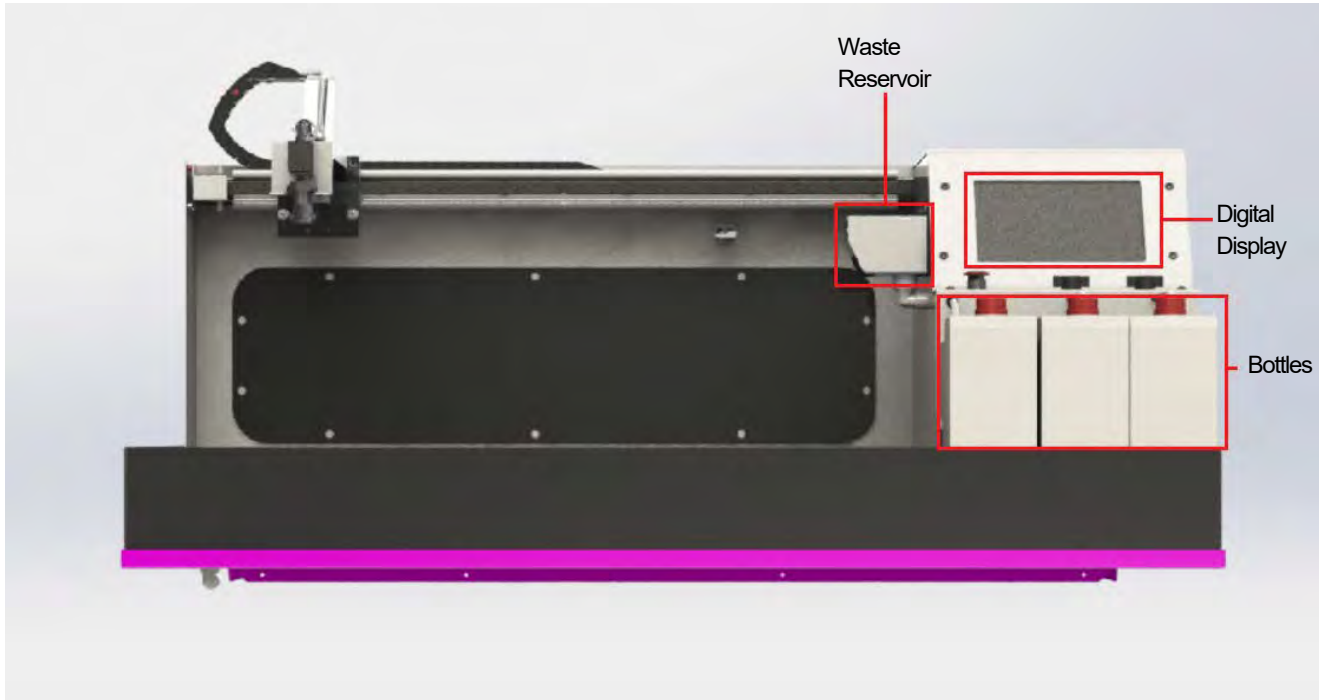
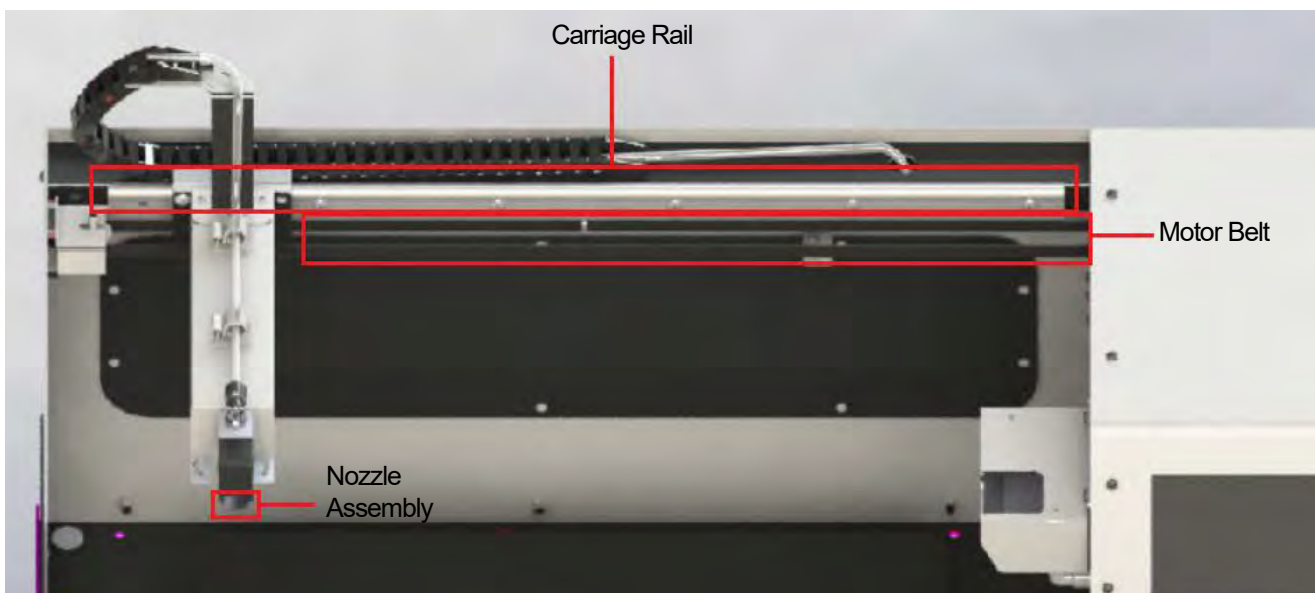


Fig. 4 - Mechanism of Direct Treater Air Pretreatment Machine



# Anatomy of a Direct Treater Air Pretreatment Machine (Cont'd)

Fig. 5 - Rear View of Direct Treater Air Pretreatment Machine

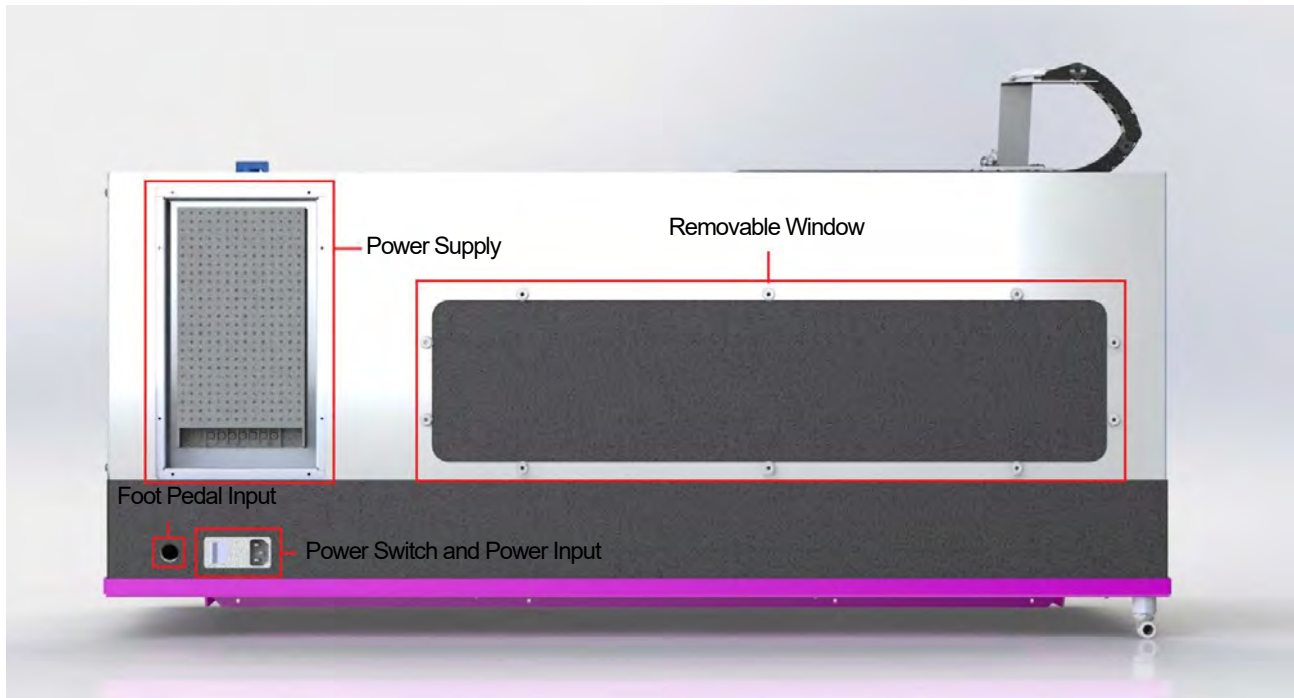
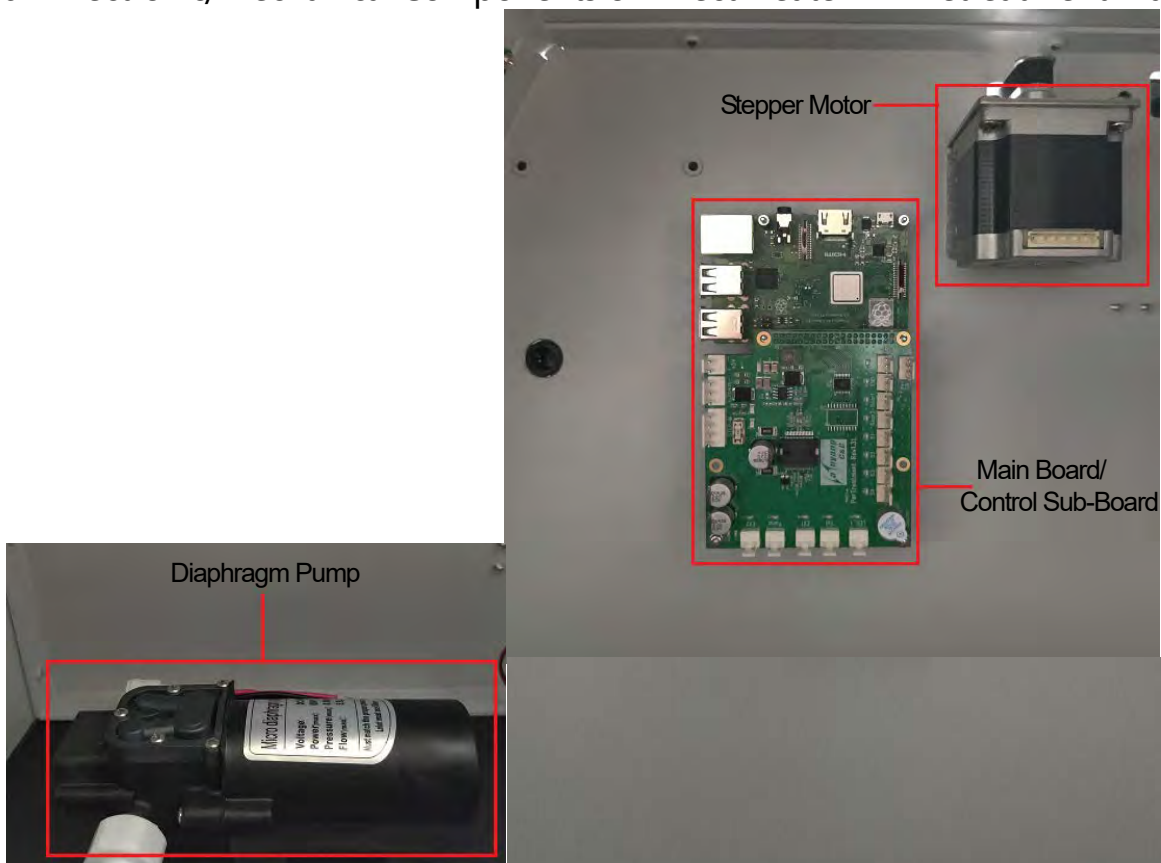
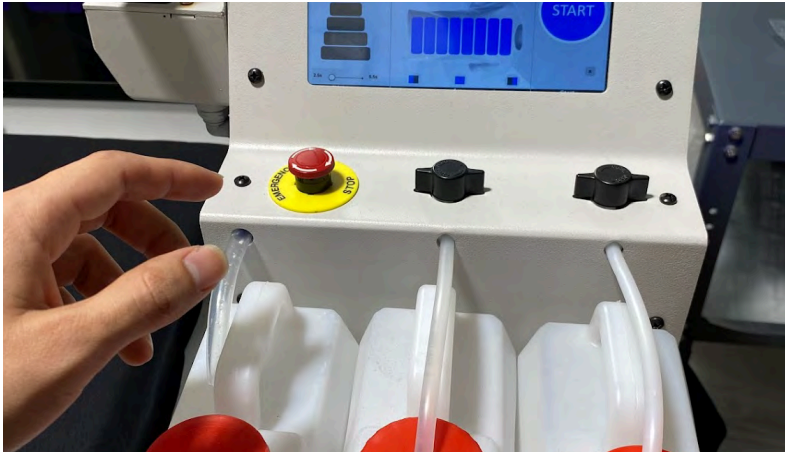


Fig. 6 - Electronic/Mechanical Components of Direct Treater Air Pretreatment Machine





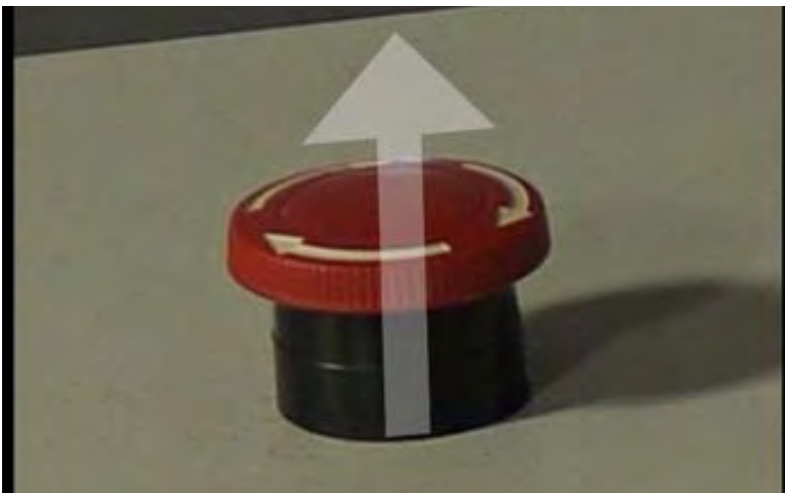
# Before You Plug-In Your Machine!



1. Locate the Emergency Switch on the right front panel of the pretreatment machine. This is the small red circle with white arrows on it.



2. Twist the Emergency Switch in a clock-wise motion (as shown by arrows) and lightly pull to release it from the factory transit lock. The Emergency Switch should pop up. This enables the function of the Emergency Switch, which is to shut off power in case of an emergency or malfunction.





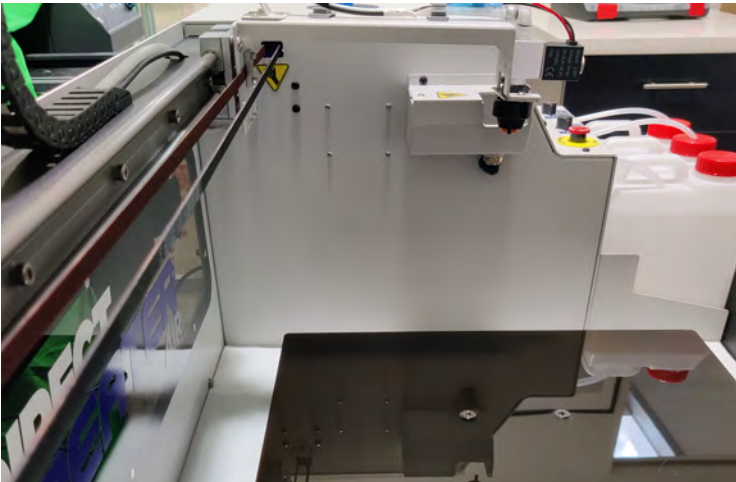
# Setting Up Your Direct Treater Air



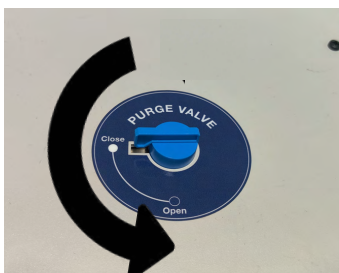
1. With the back power switch at the OFF position, plug your power cable into the back of the pretreatment machine. Be sure to plug into a surge protector!



2. Flip the back power switch into the ON position. The machine's LED trim lights should instantly light up and the machine should now be powering on.



3. As the machine is powering on, you will hear two beeps and the nozzle assembly will move forward and back in order to home itself.



4. On top of the front panel is the purge valve facing horizontally. Rotate this valve counter-clockwise to face forward.

# Setting Up Your Direct Treater Air

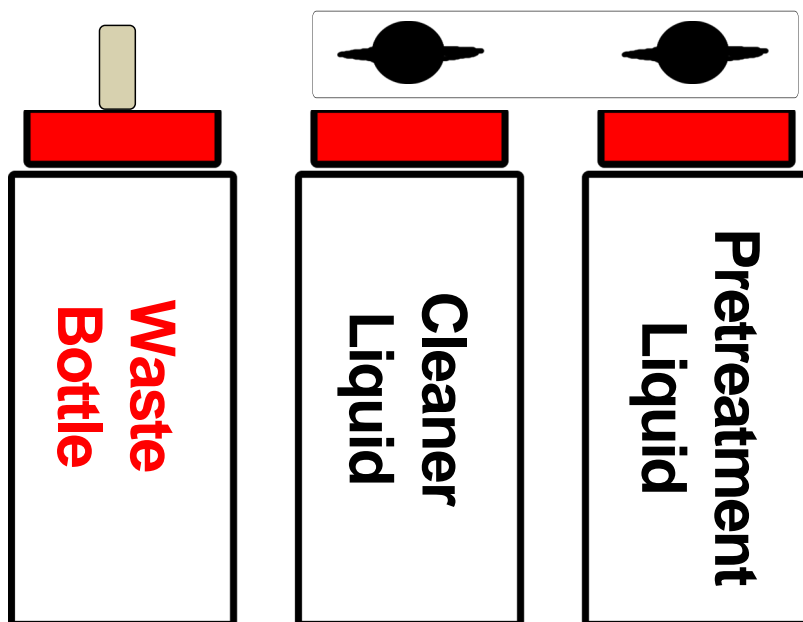


5. On the front panel, ensure both knobs are oriented horizontally to signify they are closed.

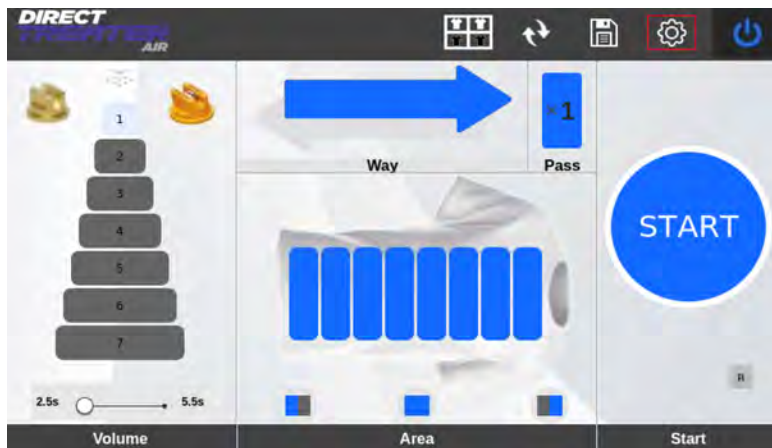


6. Open the right knob to point vertically. Then fill the far right reservoir bottle with a pre-treatment liquid of your choice.

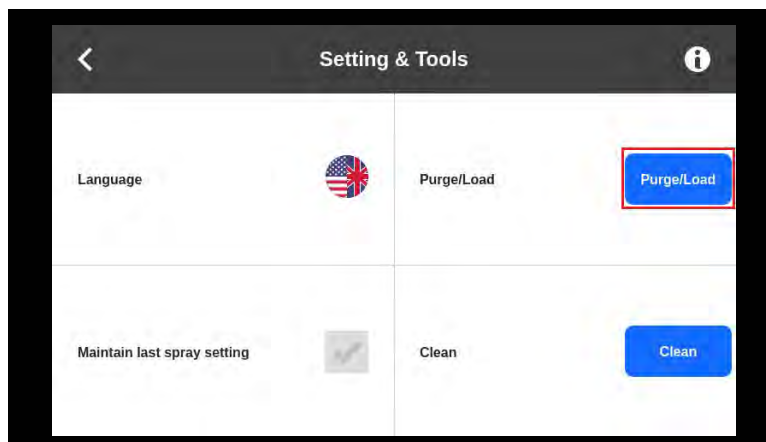
## Correct Reservoir Bottle Assignment (Left To Right)



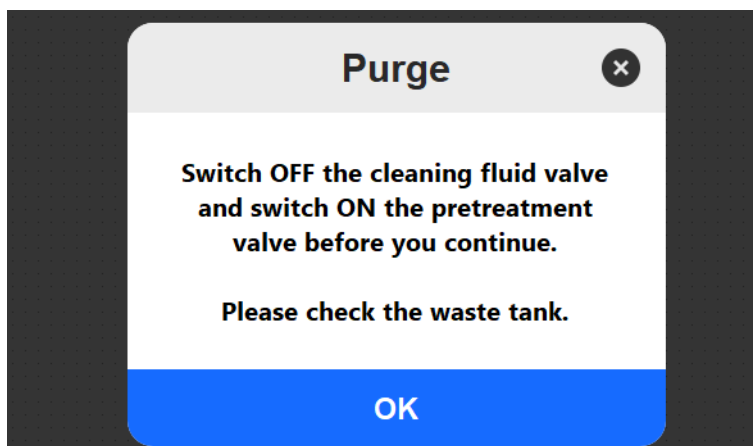
# Setting Up Your Direct Treater Air



7. Tap on the gear icon on the top right corner of your touch screen to open your "Settings & Tools" menu.

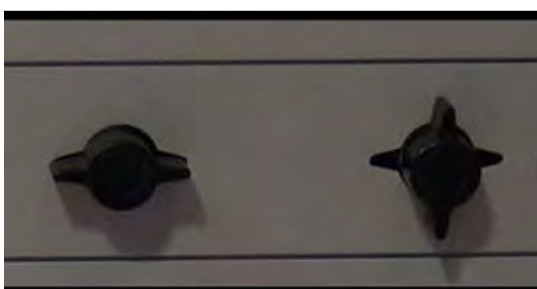


8. Next, tap on the "Purge/Load" button to get started on the process of loading liquid through the lines and spraying out of the nozzle tip.

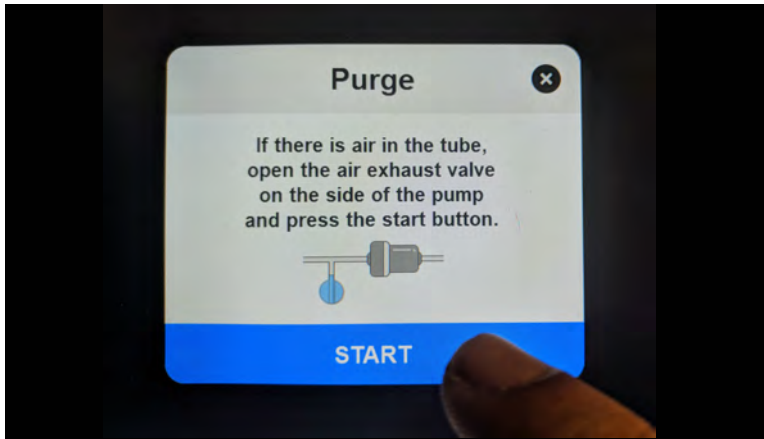


9. A pop-up will prompt you to switch off the cleaning fluid valve and switch on the desired pretreatment fluid valve before continuing with the purge.

The right valve should be opened and the left valve should be closed. Tap "OK".



# Setting Up Your Direct Treater Air



10. The next window will advise you to open the Purge Valve on top of the front right panel. Since we have already done this, tap "Start" to begin the purging process.



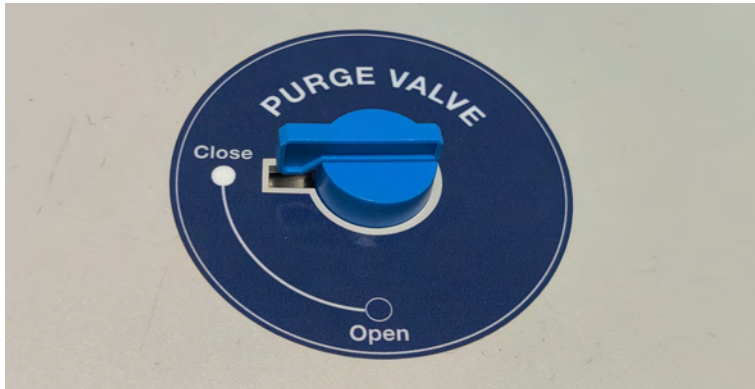
11. As the machine purges pre-treatment liquid through the system, you will see a "Purging..." loading window as shown on the left.



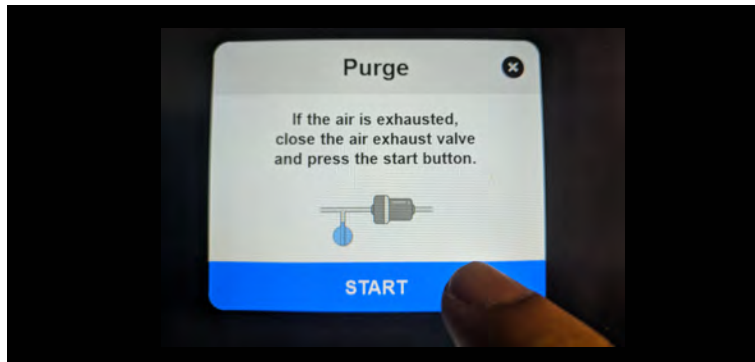
12. Purging will stop after a short period and prompt you to close the purge valve before continuing.



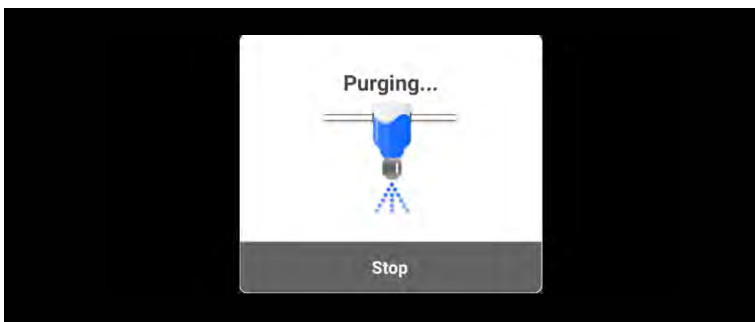
# Setting Up Your Direct Treater Air



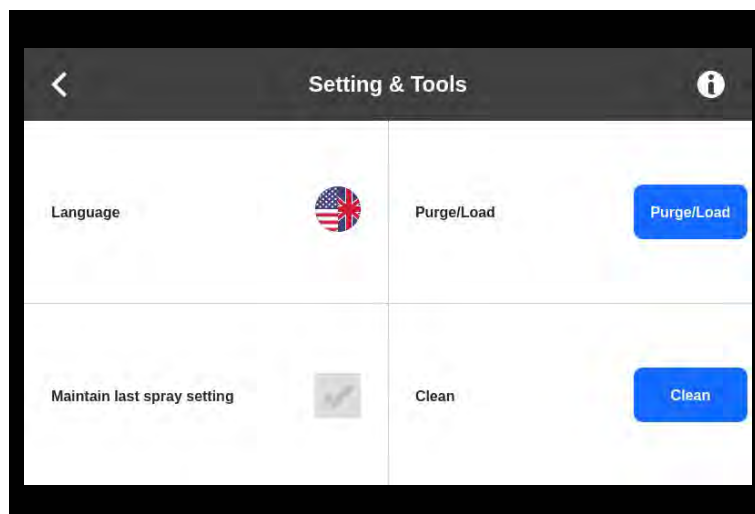
13. Close the blue Purge Valve. It should now be facing horizontally. Think of this as an air pressure buildup/ release valve.



14. Next, tap "Start" to finish loading pretreatment liquid throughout the lines.



The "Purging..." process window will reappear.



After it is finished, you should see pretreatment liquid through the lines and spraying out of the nozzle. You will hear two consecutive beeps and the touch screen will return to the "Settings & Tools" menu. The machine is now primed and ready to use.

# Direct Treater Air General Functions



## Volume

Controls the amount of pretreatment liquid that is laid down during each spray. You can find more details in the Reference Table on page 23

## Way

Controls the times the pretreatment liquid is sprayed per round trip (either one or both ways).

## Pass

Doubles the amount sprayed per cycle

## Area

Controls the spray area of the pretreatment liquid. Adjust as needed for smaller garments or smaller print areas to save on pretreatment costs.

## Start

Initiates the pretreatment spraying process.

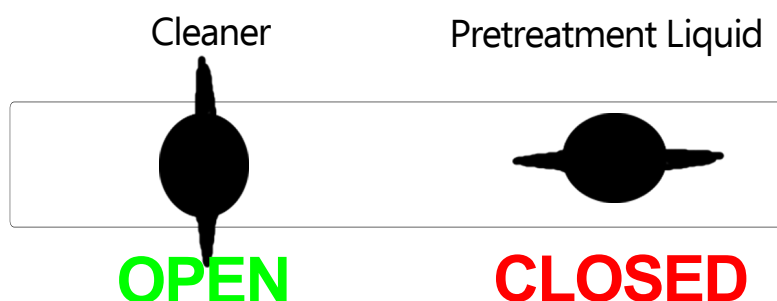
# Direct Treater Air Shut Down Procedure



Before getting started with the shut down procedure for the Direct Treater Air, make sure the right knob for the pretreatment reservoir bottle is shut and the knob for the cleaner reservoir bottle is open as shown in the image above.

This is done in order to cut off the pretreatment lines so that only cleaner may be pumped throughout the machine while purging out remaining pretreatment liquid.

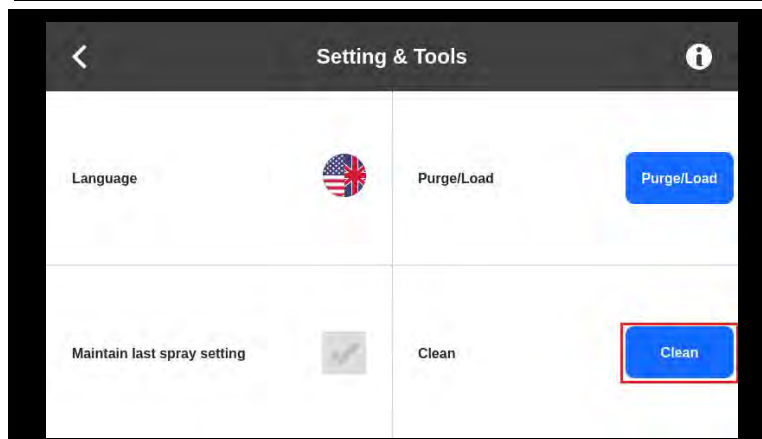
In addition, make sure the cleaner reservoir bottle is filled at least 3/4 so that there is a sufficient amount that can be purged throughout the system.



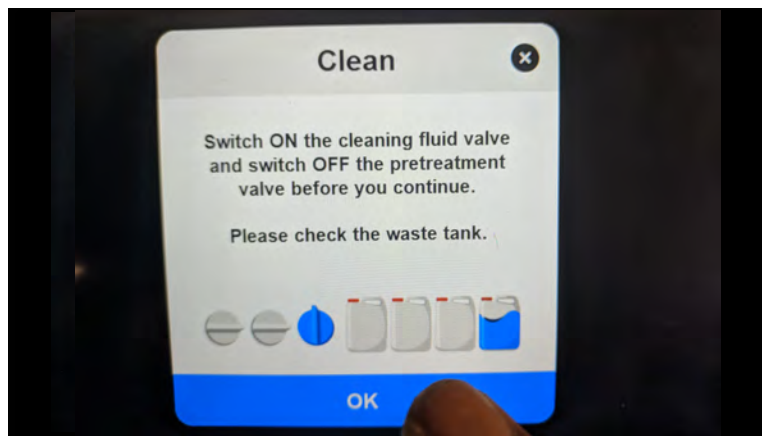
# Direct Treater Air Shut Down Procedure



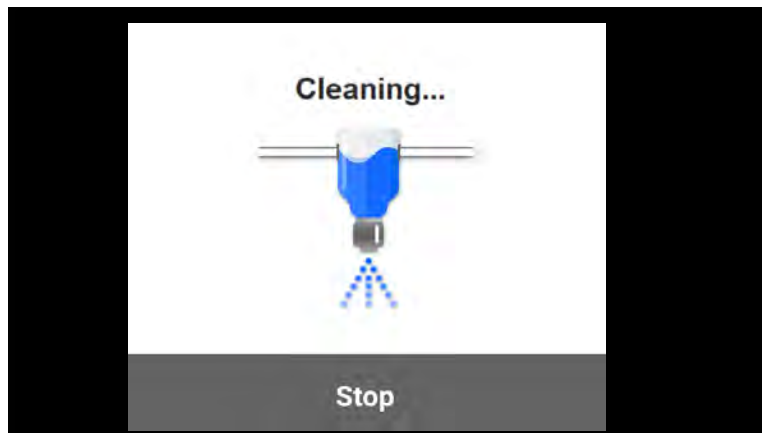
1. Tap on the gear icon on the top right corner of your touch screen to open your "Settings & Tools" menu.



2. Tap on the "Clean" option get started with the cleaning process.



3. You will be prompted with a pop-up window to make sure you close the pretreatment valve and open the cleaner valve before continuing. Tap "OK" to initialize the cleaning cycle.



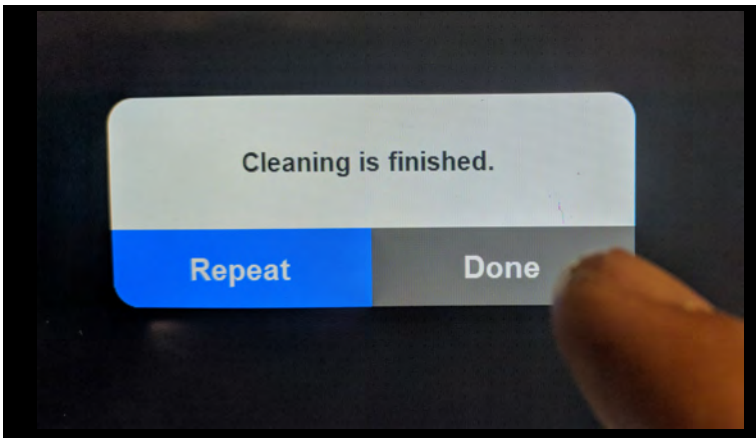
A 'Cleaning' window will appear while the machine runs through the cleaning cycle.



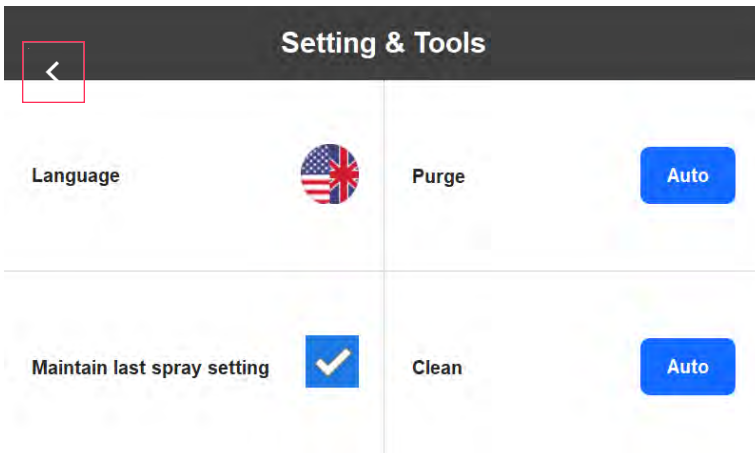
# Direct Treater Air Shut Down Procedure



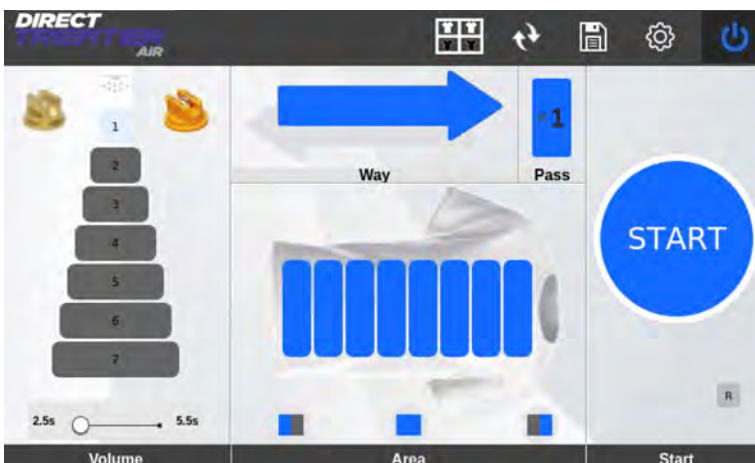
5. The nozzle should be spraying cleaner into the purge reservoir and the lines leading up to the nozzle assembly should be clear.



6. You will see a pop-up window that with two options: "Repeat" & "Done". If the lines are clear, tap "Done". Tap "Repeat" only if another cleaning process is needed.



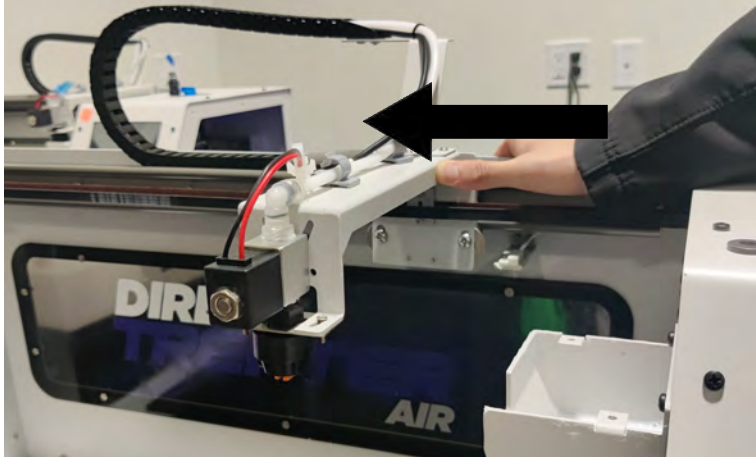
When you tap "Done" you will be returned to the "Settings & Tools" menu screen.



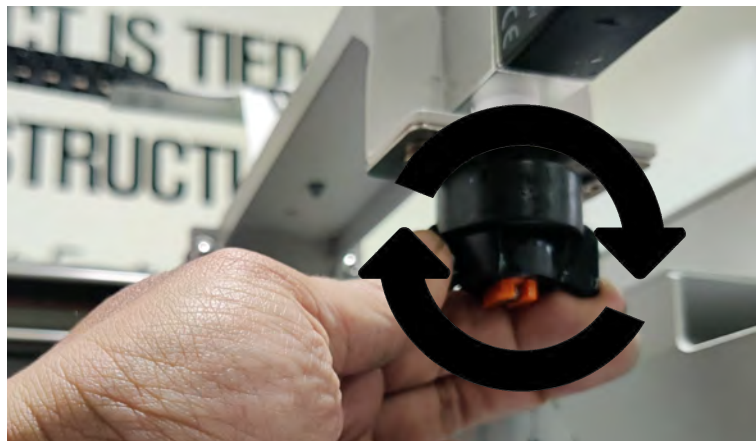
7. Tap the arrow at the top left of the screen to be returned to the "Home" screen.

Next, you will need to remove the nozzle from the nozzle assembly to preserve it.

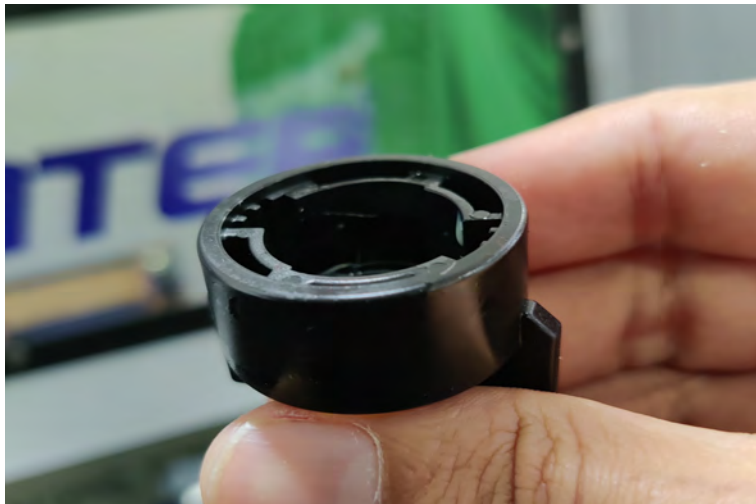
# Direct Treater Air Shut Down Procedure



8. Before removing the nozzle, carefully move the spray arm mechanism to the center of the track.



9. To properly remove the nozzle, rotate the outer black plastic valve lock clockwise (from top view) to release the nozzle assembly components.



10. Lightly pull down to remove the nozzle assembly and its components.

# Direct Treater Air Shut Down Procedure



The above are all the components of the nozzle assembly.

11. To preserve these parts, they must be left soaking overnight in cleaner liquid to loosen up waste and old pretreatment residue that can ultimately affect the functionality of these parts.



12. Now that you've cleaned the system and removed the nozzle to soak, you may shut off the machine by switching the back switch to the "Off" position.



# Installing Nozzle Into Spraying Mechanism



1. Remove the black plastic valve lock from the nozzle assembly.



2. Take the nozzle tip and carefully insert it into the black plastic valve lock with the tip facing down (shown left).



3. Make sure the nozzle tip is completely inserted and is snug with the opening for the tip. (shown left)



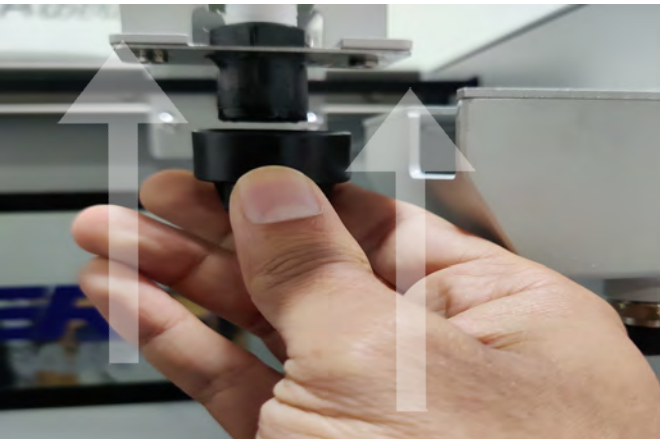
4. Insert the black rubber O-ring directly over the nozzle and lay it flat on top of the nozzle tip.



# Installing Nozzle Into Spraying Mechanism



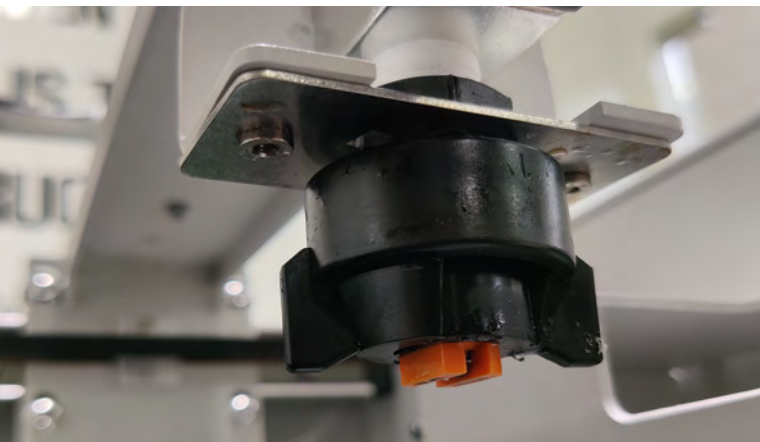
5. Lastly, insert the mesh filter with the flat top facing down (as shown left) to complete the nozzle component assembly. It is now ready to install into the machine.



6. Line the mesh filter with its slot on the machine and slowly push the nozzle assembly up to reinsert the entire thing into the machine.



7. Twist the plastic valve lock in a counter-clockwise (from top view) motion to lock the nozzle onto the machine.



You've successfully installed the nozzle and you may now continue to use the Direct Treater Air pretreatment machine.

# **DIRECT** **TREATER** AIR

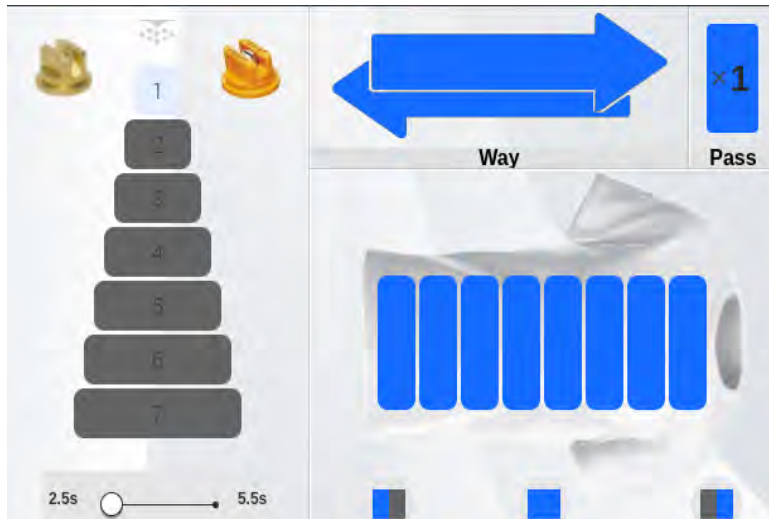
## Spray Settings

**DISCLAIMER:** These official settings guidelines have been established as starting points for pretreating specific garment types. Please note that all garment types, colors, brands, and quality will vary in results so adjust by increasing or decreasing settings as needed until the desired results are achieved.

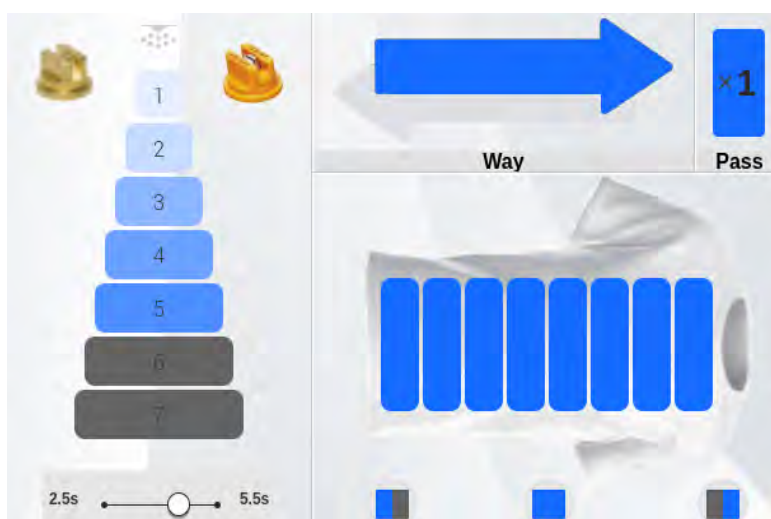
### White/Light Cotton Garments



### Black/Dark Cotton Garments



### White/Light Polyester Garments





### Black/Dark Polyester Garments



# Reference Table

The below table will give you an approximation of pretreatment sprayed per given volume setting in grams for full area of platen.

VOLUME		
1	15	30
2	18	36
3	21	42
4	24	48
5	27	53
6	30	60
7	33	66

\*All Volume settings can have a variation of  $\pm 2.0$  grams due to differences in mechanical properties of individual machines

# Included Accessories



## **Foot Pedal:**

We have included a market exclusive foot pedal with your purchase of the Direct Treater Air. This works in the same way as the 'Start' button would on the user interface. Simply plug in the pedal at the foot pedal input on the rear of the machine and tap the pedal any time you are ready to spray pretreatment on your garments.



## **800067 Nozzle:**

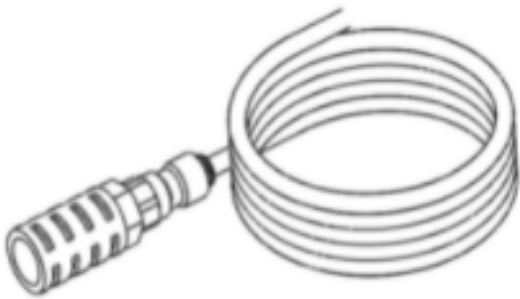
Out of the box, the Direct Treater Air comes with the 8001EVS (orange) nozzle installed. This nozzle has the most consistent and uniform spray across the entire width of the platen. We have included an extra nozzle for those that may be sensitive to the heavy misting of pretreatment caused by the open chassis design. The 800067(gold) nozzle reduces the misting of the pretreatment, although it is recommended to use for garments that will have narrower prints (approximately 8" - 12" maximum) as this nozzle will have a bias towards the center of the platen.



# Included Accessories (cont'd)

## **Extension Kit for external container:**

We have included an extension tube and an accompanying filter so that you can use a larger container of pretreatment for high volume workloads. Simply remove the tube from the coupler on the Pretreatment liquid bottle end, attach the extension tube and the filter onto the coupler so you can place the extension right inside your large container.



## **Waste tube:**

Attach this larger diameter tube to the drain output on the rear of the Direct Treater Air and place a waste container directly below. This keeps your table and workplace clean of residual pretreatment liquid that drains into the chassis and out of the drain output of the Direct Treater Air.



# User Interface for the Direct Treater Air:

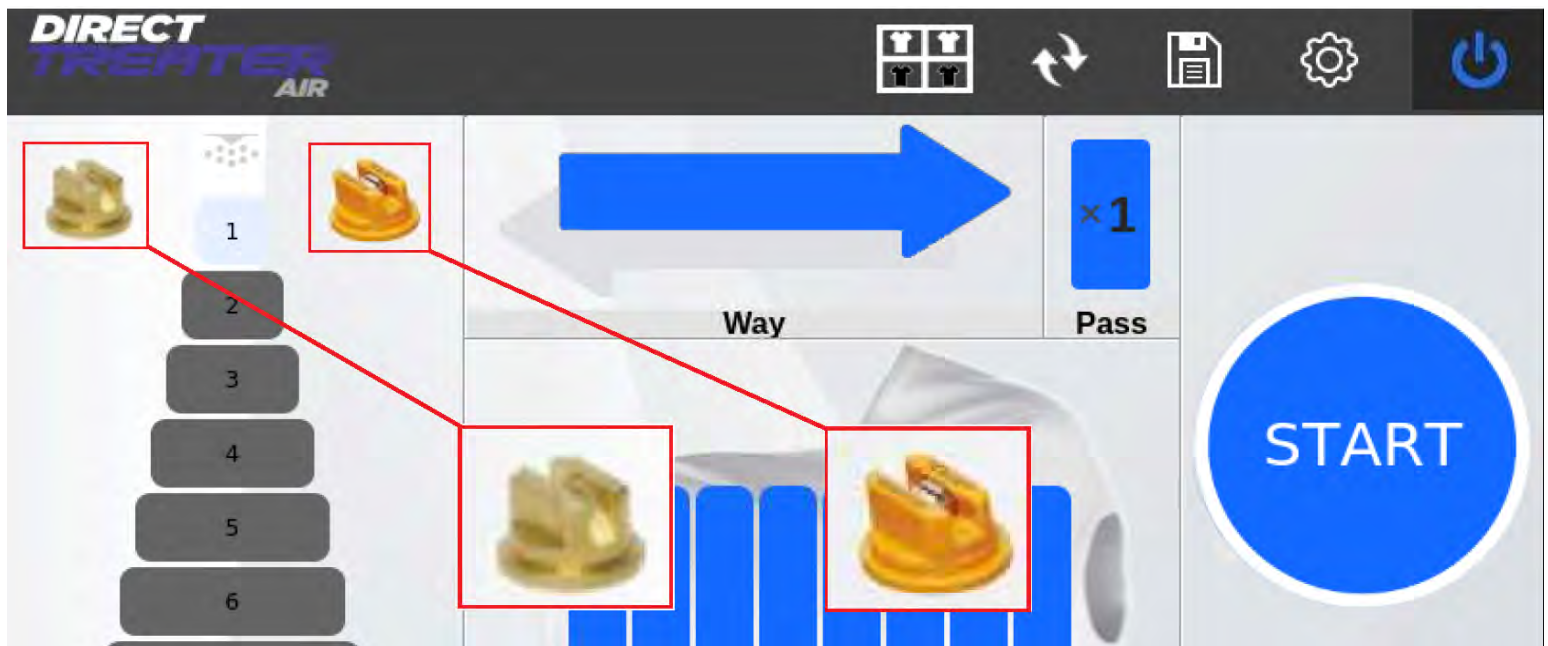
We have included features to make use of your Direct Treater Air convenient and easy to integrate into your existing workflow.

The following is a brief description of the features:

## Nozzle Toggle:

As noted on page 22, we have included an extra nozzle (800067-gold) in the package for your convenience. By default, the Direct Treater Air will have spray settings specific to the 8001(orange) nozzle.

If you want to switch to the 800067 nozzle, simply tap on the gold nozzle button on the left side(highlighted in Red below). You will notice the orange nozzle gets grayed out to indicate the settings for it are disabled. You can use your machine with the newly installed nozzle normally. All the volume settings, presets and saved settings will be in range, although as previously noted, the spray will have a more centered bias.



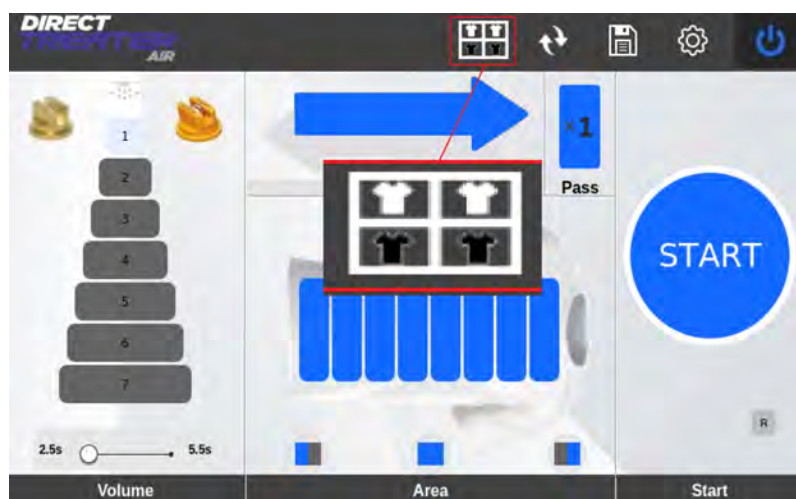
Gold & Orange Nozzle Toggle buttons

If you want to switch back to the 8001 nozzle, simply tap on the orange button on the right, you will notice the gold nozzle gets grayed out to indicate the settings for it are disabled. You will be able to use your Direct Treater Air normally with settings for the 8001 applied.

Note: At start-up, the Direct Treater Air will default to 8001(orange) nozzle settings, to use the 800067 nozzle, you will need to tap on the gold nozzle button on every start up.

## Presets:

To make it convenient, we have included a Presets window with general recommended settings for each garment type. Simply tap on the garment type and hit Start once you are ready to pretreat your garment. Although these presets are good starting points, you may have to manually adjust volume/way settings to adjust the amount of pretreatment your garment needs(either more or less) depending on factors such as quality of garment, brand, etc.



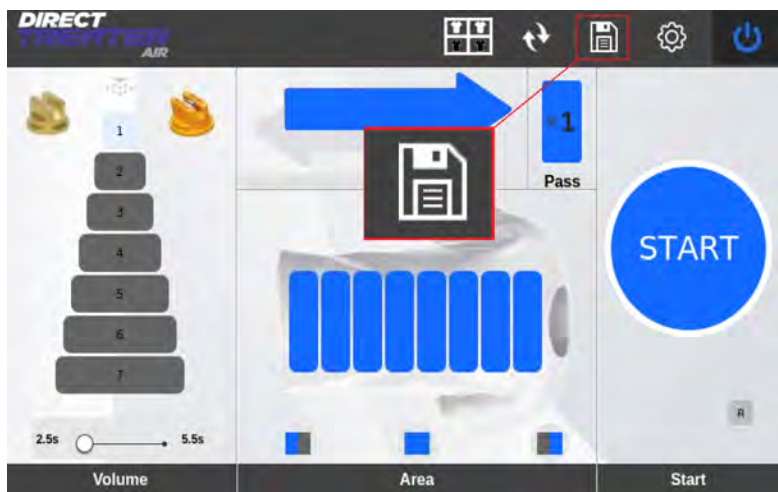
**Presets Button on Main Window**



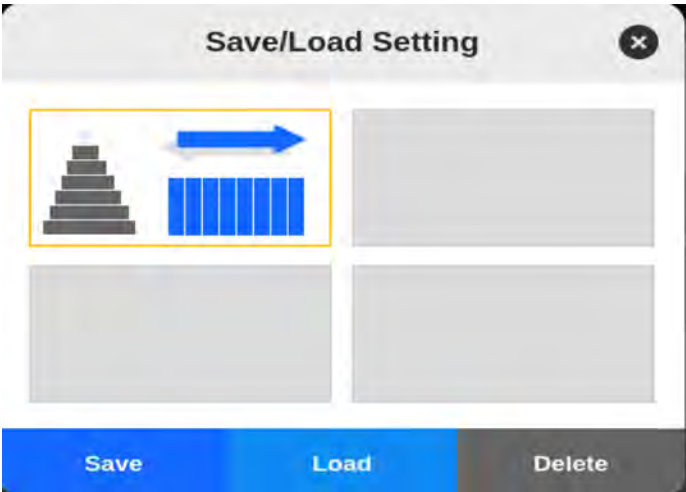
**Presets Window**

## Save/Load Settings:

If you have found your ideal spray settings and would like to save them for future use, you can do so here. You can save up to four preferred settings and load each one onto the main interface whenever you wish to use them.



Save/Load SettingsButton on Main Window

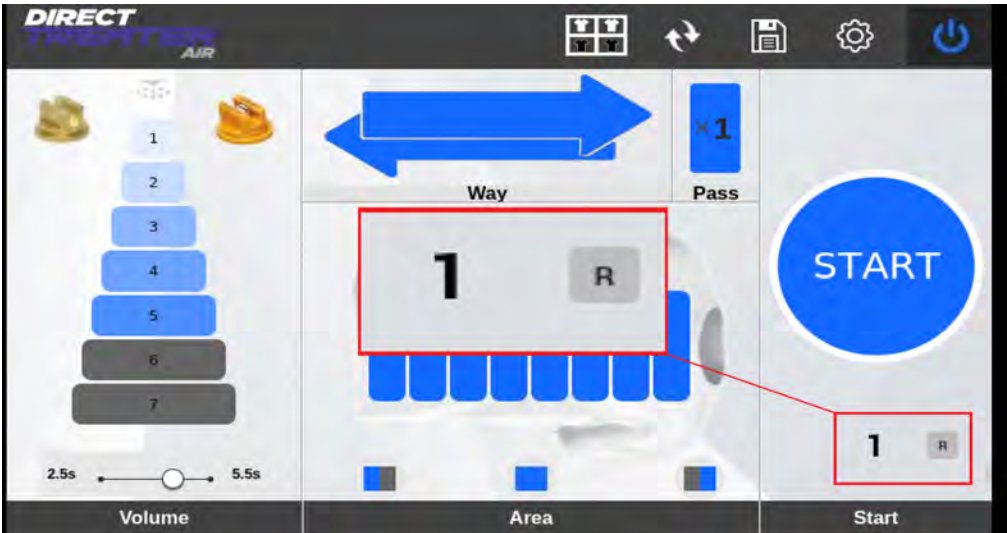


Save/Load Settings Button

## Spray Counter:

To help keep track of your pretreated garments, we have included a counter that will take the guesswork out of your workflow.

You can also reset your counter by tapping on the 'R' button on the bottom right.



Counter & Reset Button



# Maintenance

For ensuring longevity of your Direct Treater Air, it is essential that you follow a simple maintenance protocol. This not only helps with the longevity of wear items like the nozzle and filter, but also critical parts like the spray solenoid and pump, as well as the longevity of motion items like the carriage block, rail, and stepper motor.

1) Run a cleaning cycle at the end of a work shift, especially if your Direct Treater will be sitting idle for over 4 hours or more. This can be found in the Clean tab under the Settings menu as mentioned on Page 14. We recommend using our 'Pretreatment Machine Hyper Flush' (part of the Pretreatment Machine Cleaner Kit) for the best results but pure Distilled Water can be substituted. Undistilled water can have many impurities which can eventually cause wear on the pump, solenoid, nozzle, and filter.

2) Remove your Nozzle and Mesh Filter and preserve it at the end of a work shift. We recommend using our 'Pretreatment Machine Nozzle Clean' (part of the Pretreatment Machine Cleaner Kit) for the best results but Distilled water can be substituted, although you may see quicker corrosion of the wear items if using just Distilled water.



**Pretreatment Machine Cleaner Kit**

## Maintenance (cont'd)

3) Keep the carriage rail greased regularly. It is good practice to apply grease once a week although this can vary depending on your workload. The nozzle assembly and spray arm may get jammed in the middle of a spray cycle if there is not enough grease applied on the carriage rails. We recommend using our 'Freejet Grease' for best results. Apply grease on rail extrusions as shown below:



**A close up of the carriage rail. It is good practice to apply grease on a regular basis to prevent any mechanical failures due to pretreatment liquid exposure**



**Freejet Grease**

### **Wear items:**

You can expect to replace/install new nozzles as they tend to clog up over time. One way to identify clogged nozzles is if the spray pattern is not uniform across the width of the platen or pretreatment is missing on an entire section lengthwise on the garment. Additionally, mesh filters also tend to clog over time and it is recommended to replace them if you have installed a new nozzle and are still observing the same inconsistent spray pattern.