

**Please read this guide thoroughly before operating the VELOX .**

It contains information that helps extend the life of the printer parts and minimize issues that can occur from lack of maintenance.

**Power outages / machine shut off periods**

- △ If a power outage occurs, turn the machine breaker off. Fill the caps with capping fluid, pull the head carriage gently over the capping station, raise the cap station by turning the knob clockwise. Raise the cap station until it makes contact with the print heads and continue to turn ½ turn.
- △ When you are finished printing immediately fill up the caps and let the carriage auto dock. Clean the wiper blade off as often as possible so ink does not dry on the wiper. If excess dried ink is left on the wiper it can clog nozzles on the next purge & wipe cycle.

**Maintaining proper ink level**

- △ Make sure your ink tanks are never less than ¼ full. If air is introduced into the print heads it can cause permanent damage.
- △ We advise you to remove the ink tanks every 6 months and inspect them for excess ink sediment. Rinse with clean water if needed and replace. The white ink tank should be removed and inspected every month.
- △ It is advisable to rotate / rock the white ink bottles prior to pouring into the ink tanks. It is normal to see some sediment in the bottom of the white ink bottles. Do not attempt to mix excess sediment with ink and pour into the tanks.
- △ Ink stock should be rotated every 30 days to help prevent settling.

**Cleaning print heads / carriage**

You need to clean around the print heads and the bottom of the head carriage multiple times daily during production. You also need to clean the wiper that comes into contact with the print heads. Use cleaning fluid and lint free wipes or lint free swabs only.

**Intermittent or dropped nozzles**

Occasionally fine lines / gaps may occur in the CMYKW printed image. It may be caused by weak or intermittently clogged nozzles.

Performing a cleaning cycle and printing a nozzle test may solve the issue. If severe nozzle loss has occurred print head replacement might be necessary. To prevent printhead issues ensure the heads are never dry capped.

**Head height**

- △ Print head height is set to 1.5 mm during installation and should not be adjusted.
- △ If head height is adjusted you need to perform the head alignment procedure again.
- △ If head height is adjusted too low a head strike may occur and permanently damage the print heads.

## **Loading rolls of film**

During installation the take-in reels are positioned to help with film tracking. The left take-in reel should not be moved and is marked with tape for the correct position.

The tension knobs on the take in reels should not be adjusted. They control the film tracking and also affect print registration. Loading of rolls of film should always be done consistently to aid in film tracking. To help with print time, always load the film closest to the cap station. This minimizes the head carriage scan width and improves print speed.

## **Adjusting printer vacuum & heat**

The **VELOX** printer has vacuum adjustment to help keep the film flat while in the print area. We advise using the vacuum to avoid head strikes. If you don't use the vacuum you need to ensure perfect film loading. If film is loaded and allowed to track off it will buckle and create head strikes.

Using the heated printer bed allows the ink to dry slightly. This is useful when printing in any of the quality modes. Drying the ink slightly as it prints will improve opacity in the finished print. Printing without heat is done for CMYK only and when designs have very small detail incorporated. It is advisable to not leave the printer in an idle state with the heated bed turned on. The bed will generate excessive heat that can cause damage to the electrical components.

## **Feed table heat**

The feed table is the part that extends from the dryer towards the printer. As the film is passed over the table it is heated to help dry the ink prior to powder application. We have found it works best to keep this heat setting around 100F - 130F depending on the profile you are running.

Turn the table heat off when printing designs that have small details incorporated in them. This allows the ink to stay wet long enough to "grab" the correct amount of powder.

## **VELOX Dryer**

The **VELOX** dryer is what applies the powder and melts it from powder to an adhesive film. This step in the process is very important. If you don't melt the powder to the ink correctly you will have print performance issues. Your finished print on the film should have a glossy appearance when melted correctly. If you over melt the powder it will not adhere to the garment because its adhesive properties are burned.

This process requires an operator to monitor the dryer as film is being run through. If the film tracks off, the powder application may not be even. If the printer stops running the dryer will stop feeding film. The bulbs will stay on and the film under the bulb section may melt or start on fire if left sitting idle long enough.

## ***Do not leave the dryer running unattended***

## **Heat Press settings**

The Heat press is what brings this entire process together. You will want to make sure the IR panel is heating accurately across the entire surface. Do this with a temp gun to find any cold spots.

Pneumatic heat presses are great with their digital pressure readout. Controlling the pressure used should be the user's responsibility. The harder the press the more press box you will get. You should go as firm as possible without leaving a press box. Then adjust your time and temperature accordingly for best results. Listed below are settings we have found success with using our equipment. As all heat presses are different you need to do proper wash testing that meets your QC standards.

## **Cover pressing with a sheet after the cold peel**

Not all garments require a cover press after the peel. The cover press helps to finish the fuzing of the glue into the garment fibers and hold down any print edges that are lifted during the peel.

Using different cover sheets also provides different finishes to the print. Teflon will give the print a glossy finish along with more hand. A cotton sheet will help absorb moisture and give a softer hand.

### **Heat Press Settings - continue**

△ 100% Cotton & 50/50 blends 300F @15 seconds / cold peel / cover press 300F @5 seconds with sheet

△ 100% Polyester

265F @15 seconds / cold peel / cover press 265F @5 seconds with sheet

### **Washing Instructions**

For best results please follow the washing instructions below. If you are working with a garment that shrinks excessively you may see the finished print "wrinkle".

The garment may shrink but the ink will not, which creates wrinkles. This is all due to excessive heat in the washing process. We advise not drying poly garments on high heat as the dyes continue to out gas and can discolor the print.

***Machine wash with cold water, normal wash cycle***

***Tumble dry low heat, normal dry cycle***

### **VELOX PC specifications**

We suggest using the PC supplied from SPSI. If you choose to build / buy your own PC the specs you should match are listed below.

Intel i9 13 core

NVMe SSD drives 1 TB & 2 TB drives for separated SW and storage

64 GB RAM

Windows 11 Pro 64 bit

## Limited Warranty for VELOX (DTFS) Direct-to-Film System

**What Is Covered:** The SPSI Inc. warranty for the **VELOX** DTFS is only valid to the first end-user customer that the **VELOX** DTFS covered by this limited warranty statement, if purchased and used in the United States.

**This warranty is not transferable.**

1. This Warranty covers the defects resulting from defective parts, materials or manufacturing, if such | defects are revealed during the **period of 90 days after installation and customer signs off on the VELOX INSTALLATION COMPLETION FORM.** Without signature on this form the warranty is not in affect.
2. If the printhead needs replacement within 90 days from install then SPSI will sell a printhead replacement at 45% off list price. If the printhead needs replacing 91days to 6 months from install then SPSI will sell the printhead replacement at 25% off list price. **The warranty does not cover the printheads.**

**What This Warranty Does Not Cover:** This warranty does not cover damage to the **VELOX** DTFS caused by parts or supplies not manufactured, or certified by SPSI Inc.

- **Consumables, supplies, accessories, other expendable items, such as filters or pads are not covered under this warranty.**

**Listed below are exclusions from the warranty of the **VELOX** DTFS**

### Exclusions:

1. **You must use only **VELOX** inks throughout the warranty period.** Use of non-**VELOX** ink, or SPSI authorized recommendation at any time during the warranty period disqualifies your product from receiving any warranty coverage.
2. **You must use only **VELOX** film and **VELOX** adhesive throughout the warranty period.** Use of non-**VELOX** supplies, or SPSI authorized recommended supplies at any time during the warranty period disqualifies your product from receiving any warranty coverage on any components of the **VELOX** DTFS.
3. **The warranty does not cover the travel expenses incurred by the technician. The warranty does not cover daily labor charges incurred by the technician.**
4. Any damage, maintenance or service arising from excessive or continuous use without maintenance procedures followed as outlined in the USER'S GUIDE and the **VELOX** Owner's Portal Videos.
5. Any damage caused by misuse, abuse, neglect, lack of maintenance, removal of components, disasters such as fire, flood, lightning strikes, electrical supply malfunction, or improper moving or shipping to another location from original position as installed by SPSI Inc. authorized technician.
6. Any damage caused by third-party software, applications, parts, components or peripheral devices added to the printer, computer, or any portion of the **VELOX** DTFS after installation from a **VELOX** authorized technician.
7. Any damage caused by improper environmental conditions for the **VELOX**. The **VELOX** DTFS must be in a climate controlled room and should not fall outside the recommended conditions as stated in the USER'S GUIDE.

8. **Any damage from service performed by other than an **VELOX** Authorized Servicer only through SPSI Inc. Technical Services.**

9. Any printed media or product used in transferring of film. There is no reimbursement of materials, labor, expenses for reprinting.

10. Excessive nozzle failure caused by dry capping, improper cleaning & lack of maintenance procedures are not covered under warranty.

11. **Any service for replacement of consumable maintenance accessories**

12. **Any damage caused by improper use, neglect or improper performance of user-level maintenance.** Refer to **VELOX** documentation or owner's portal at <https://spsi.com/pages/VELOX-maintenance-operational-videos>

13. SPSI Inc. represents and warrants that the **VELOX** DTFS does not contain any known viruses and that services relating to the integration, development, and implementation of the computer / operating system for the **VELOX** DTFS. If it is discovered that operating system of the **VELOX** DTFS contains a virus, worm or hacking device, then first end-user customer shall take appropriate measures at its sole expense, to remove such virus, worm or device. Any damage caused to the operation of the computer, printer, or software is not covered in the warranty.

14. Damage caused by neglect in any of the below listed user-level maintenance items::

- Cleaning around print head and capping station (as outlined in **VELOX** Portal Videos)
- Clean the wiper blade off as often as possible so ink does not dry on the wiper. (as outlined in **VELOX** Portal Videos)
- Proper shutdown procedures whether automatic or manually due to electrical outage (as outlined in **VELOX** Portal Videos)
- Ink tanks must always be at ¼ full minimum. (as outlined in **VELOX** Portal Videos)
- If inks are not rotated and normal procedures are not followed on the ink maintenance and emptying of ink waste tank.

△ **Daily labor rate includes the travel time for the technician to and from the customer site. Rush service calls may incur additional charges.**

△ **Daily labor rate and Travel expenses are billed if a technician is required to diagnose and install parts onsite.**

**This is not included in the warranty.**

## EXCLUSION OF DAMAGES

SPSI Inc. shall not be held liable for any incidental, or consequential damages or any lost profits, cost of substitute products, customers, injury to property, or expenses. SPSI Inc., in no event will be held liable for damages of any kind in excess of the original purchase price of the **VELOX** DTFS.