

<b>TITLE:</b>	<b>Digispense ® Striper System Set Up</b>	<b>AN-106</b>
		<b>REV -</b>
<b>CATEGORY:</b>	<b>Controller Interface</b>	

## 1. DESCRIPTION

This document is to serve as a starter reference to operating a Digispense ® Striper Controller, in junction with a Digispense ® 4000 Bench Top Controller. This guide will show how to configure both Controllers to operate in Prime and Dispense modes.

### 1.1 Go to Setup Screen.

**Choose Stripe Direction.** (Default setting is “Right Only”).

**Set Stripe Length.** (Full length of bed is 450mm. The Length + Margin + Wipe Lengths, must equal to 450mm).

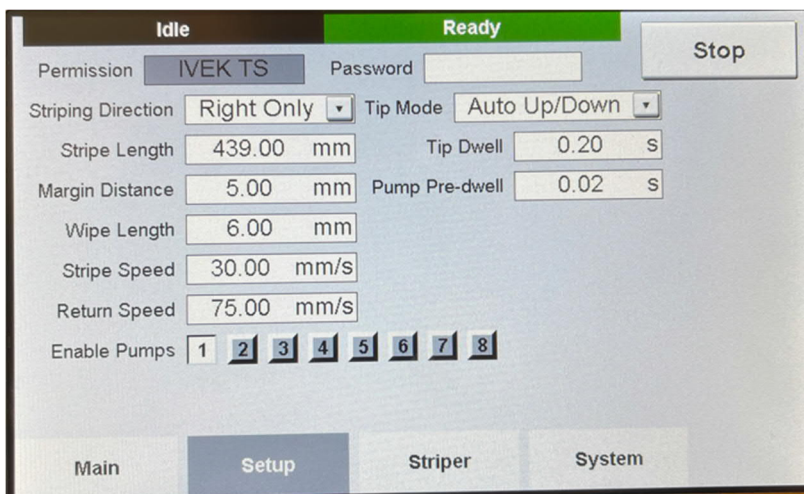
**Set Tip Dwell.** (Time from Tip Down, to Pump Start).

**Set Pump Pre-Dwell** (Time from pump start to bed movement).

**Enable Pump by selecting 1-8.**

**Set Stripe Speed.** (Length divided by Speed x Rate equals Volume).

**Set Return Speed.** (Speed that bed travels after Reference. 100 mm/s max).



**1.2 Go to Striper Screen and use the Up directional arrow to navigate to the second screen.**

**Press Start Tip Adjust.**

**Enable Tip 1-8 to adjust.**

**Press Tips Down.**

**Loosen the set screw holding the Tip in place so it moves freely.**

**Drop the tip down on the feeler gauge until you feel slight resistance. (Start with a .003 sized gauge).**

**Once the tip is at the correct starting height, lock the set screw.**

**Press Tips Up.**

**Press Stop Tip Adjust.**

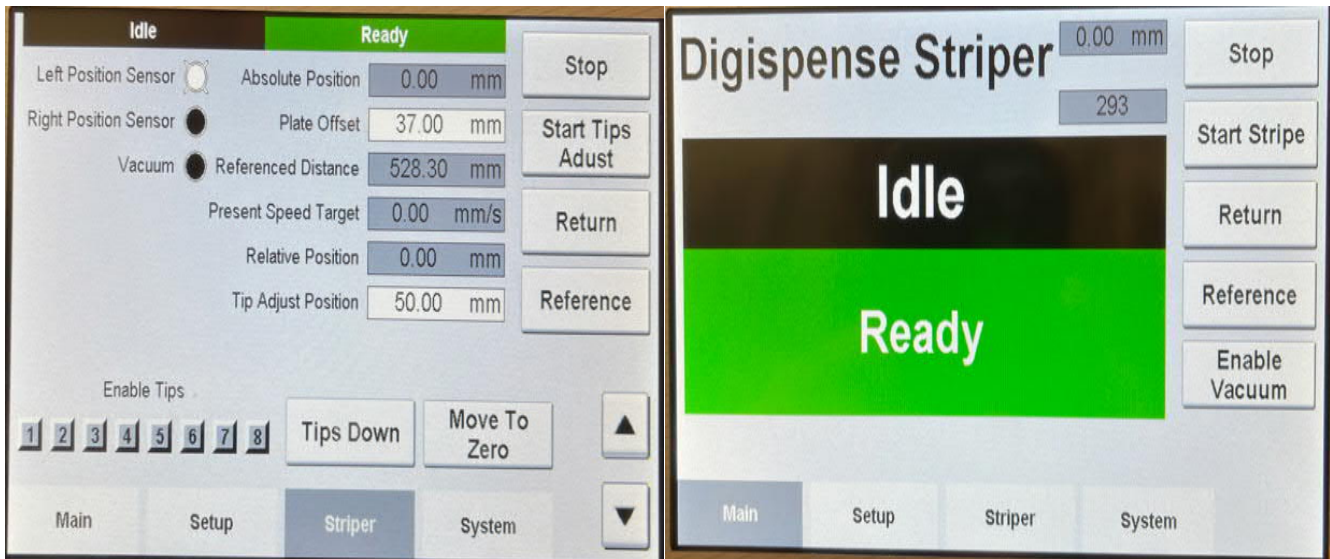
**Press Return and then go press the Main tab.**

**Press Reference.**

**1.3 Place Substrate on the Bed, lining the starting point with the zero-point line.**

**Press Enable Vacuum. (If needed, use Lab Tape or something to block off air lines on the bed, to create stronger air flow under the substrate).**

**Press Start Stripe.**



**The Digispense® Controller must be set to METER at the appropriate rate. This rate is calculated by multiplying the desired value (in uL/mm) by the bed speed (in mm/sec) which yields the necessary pump rate (in uL/sec).**

**Examples:**

**For a 15uL volume on a 150mm substrate, the line density would be:**

$$15\text{uL} / 150\text{mm} = 0.1\text{uL/mm or } 1.0\text{uL/cm.}$$

**With a Bed speed of 30mm/sec, the necessary pump rate would be:**

$$0.1\text{uL} \times 30\text{mm/sec} = 3.0\text{uL/sec}$$

**For a 60uL volume on a 300mm substrate, the line density would be:**

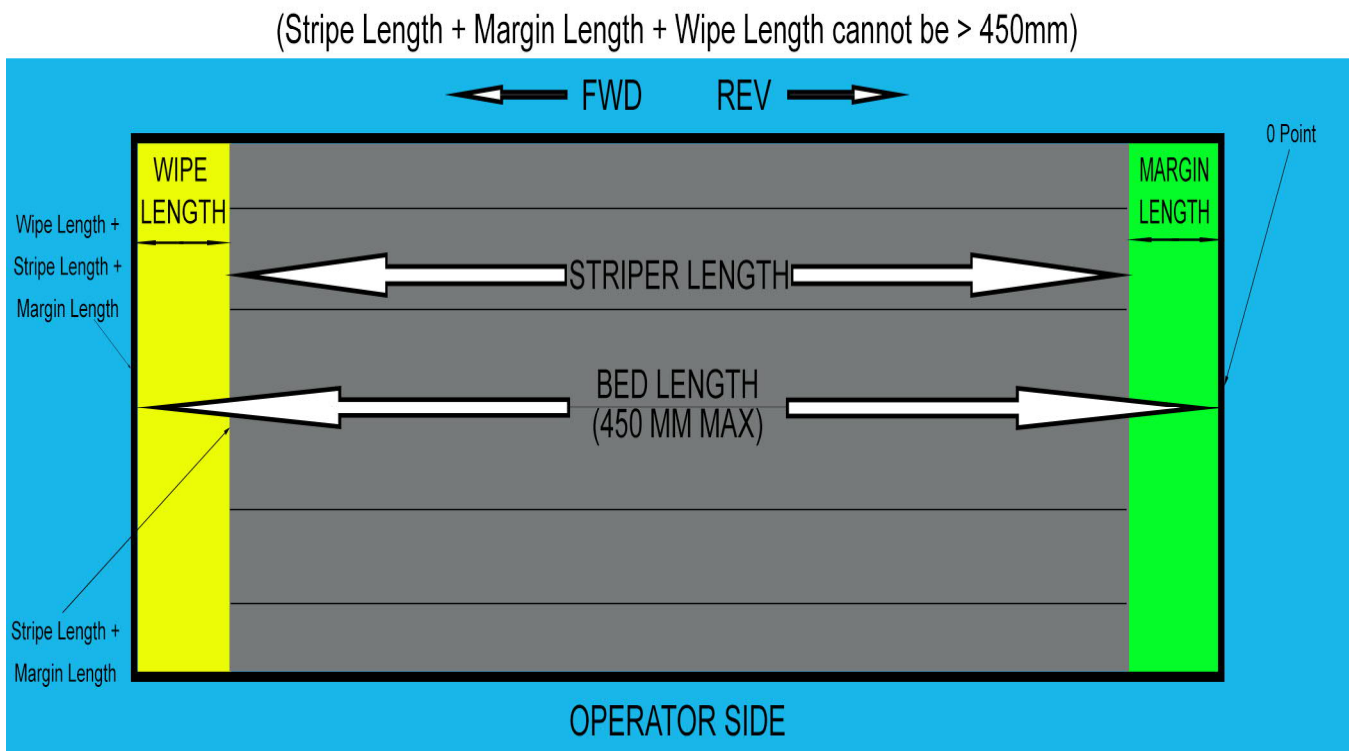
$$60\text{uL} / 300\text{mm} = 0.2\text{uL/mm or } 2.0\text{uL/cm}$$

**With a Bed speed of 50mm/sec, the necessary pump rate would be:**

$$0.2\text{uL/mm} \times 50\text{mm/sec} = 10.0\text{uL/sec}$$

**Line Density = Pump Rate/Bed Speed.**

# LINEAR STRIPER VISUAL GUIDE



**MARGIN LENGTH:** The length in which the bed will move from “0 Point”, to Dispense.

**WIPE LENGTH:** The length in which the Pump will stop dispensing fluid, while the Striper Bed will continue to move, Allowing for a smooth stripe ending.

**STRIPE LENGTH:** The total length of the Stripe Length + Wipe Length.

## Digispense ® 4000 Bench Top Set up

CC IN 1 should be set to (Gate) Production Ops.

AUX OUT 1 should be set to (Ready) Production.

1. On the Digispense ® 4000 press the “System Screen” button.
2. Press the “Screen Down” button 3 times, until you see the option for “CC IN 1”.
3. Change “CC IN 1” to: <GATE> PRODUCTION OPS.
4. Press the “Screen Down” button 2 more times, until you see the option for “AUX OUT 1”.
5. Change “AUX OUT 1” to: <READY> PRODUCTION.

Press the “Screen Up” button until you see the “Main Screen” button again and press it.

