



A-128-17

Serial Numbers S6914 and up

Revised 19 June 2020

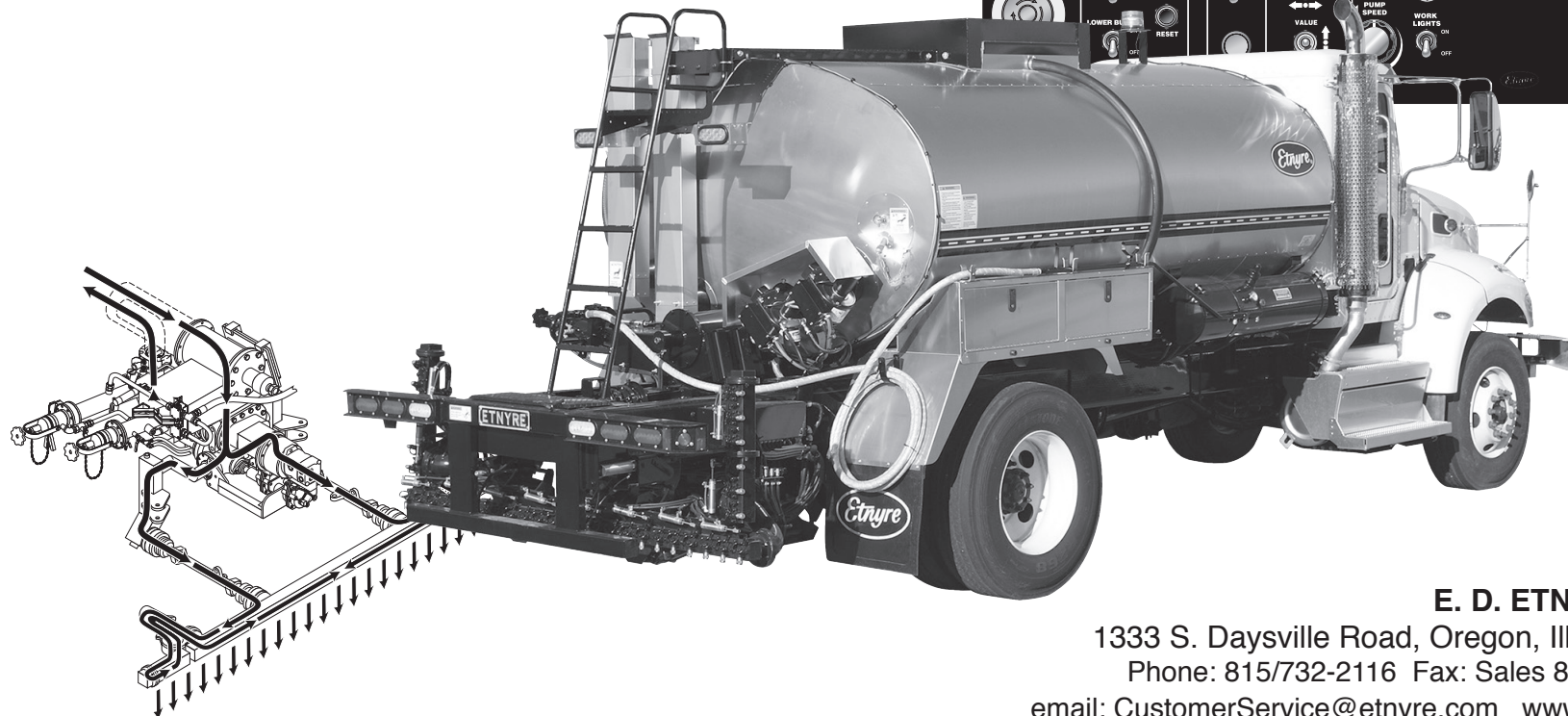
# BLACK-TOPPER®

Flow Charts and Control Positions

## Standard Spraybar

with

## BT-1 Keypad Controls



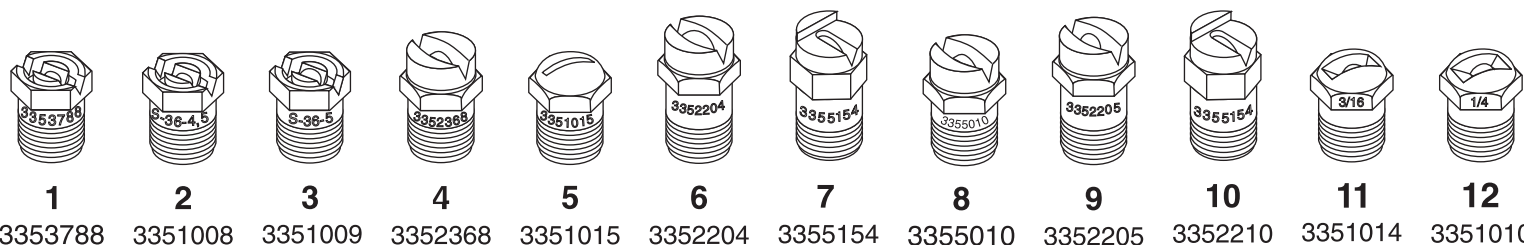
**E. D. ETNYRE & CO.**

1333 S. Daysville Road, Oregon, Illinois 61061

Phone: 815/732-2116 Fax: Sales 815-732-7400

email: [CustomerService@etnyre.com](mailto:CustomerService@etnyre.com) [www.etnyre.com](http://www.etnyre.com)

# Etnyre Spray Bar Nozzles



Ref.	Part No.	Description	Application Gallons Per Square Yard	Application (Metric) Liters Per Square Meter	US Flow Gallons Per Minute Per Foot
1	3353788	V Slot Tack Nozzle 1/8" Rifle Bored	.05 - .20	.23 - .91	3.0 to 4.5
	3351013*	V Slot Tack Nozzle 1/16" Coin Slot	.05 - .20	.23 - .91	3.0 to 4.5
	3354904	V Slot Tack Nozzle 1/8" Counterbored	.05 - .20	.23 - .91	3.0 to 4.5
2	3351008	S36-4 V Slot	.10 - .35	.45 - 1.58	4.0 to 7.5
3	3351009	S36-5 V Slot	.18 - .45	.81 - 2.04	7.0 to 10.0
4	3352368	Multi-Material V Slot	.15 - .40	.68 - 1.81	6.0 to 9.0
5	3351015	3/32" Coin Slot	.15 - .40	.68 - 1.81	6.0 to 9.0
6	3352204	Multi-Material V Slot	.35 - .95	1.58 - 4.30	12.0 to 21.0
7	3355154	<b>End Nozzle</b> (use with 3352204 nozzle)	.35 - .95	1.58 - 4.30	12.0 to 21.0
8	3355010	Multi-Material V Slot	.29 - .72	1.31 - 3.26	10.0 to 165
9	3352205	Multi-Material V Slot	.20 - .55	.91 - 2.49	7.5 to 12.0
10	3352210	<b>End Nozzle</b> (use with 3352205 nozzle)	.20 - .55	.91 - 2.49	7.5 to 12.0
11	3351014	3/16" Coin Slot	.35 - .95	1.58 - 4.30	12.0 to 21.0
12	3351010	1/4" Coin Slot	.40 - 1.10	1.81 - 4.98	15.0 to 24.0

## Contents

Etnyre Spray Bar Nozzles .....	2
Bar Suck Back Override .....	4
Control Panels .....	5
Load through Manhole.....	6
Load through Load Line.....	7
Circulate In Tank.....	8
Circulate In Bar.....	9
Spray .....	10
Suckback Spraybar .....	11
Handspray .....	12
Suckback Handspray .....	13
Unload (with External Pump).....	14
Unload (with Distributor Pump).....	15
Transfer .....	16
Flushing .....	17
Flushing Bar .....	18
Front Fill (optional equipment).....	19

## Important

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Asphalt Distributor Operation, Maintenance and Safety manual for complete instructions.

This pamphlet is provided as a tool to aid personnel in the operation of the Etnyre Blacktopper Centennial Distributor, as with any type of construction equipment, there are certain hazards associated with improper or careless operation. The ability to read and understand the instructions should be a required qualification to become an operator. There are also functions that require a certain amount of physical strength to accomplish. Persons lacking the required strength may not only place themselves in jeopardy, but also others in the vicinity. **Read and understand the Safety precautions found in M-103-17 Centennial Asphalt Distributor Operation, Maintenance and Safety manual before operating this machine.**

If you have any questions regarding this pamphlet or the operation of your unit, contact your Etnyre dealer or the E. D. Etnyre Service Department at 1-800-995-2116.

### **WARNING**

Do not use this machine for any operation which is not described in the Operation manual.

If you have any questions about the operation of this machine, contact the Etnyre Service Department at 1-800-995-2116 or 1-815-732-2116.

Operations that are not approved could cause serious injury or death.

# Bar Suck Back Override

This feature is designed for quick in-cab switching between bar circulate and bar suck back for units equipped with automatic tank and bar suck back valves. When the SUCK BACK OVERRIDE switch is ON, all automatically controlled valves are set to their correct positions for SUCK BACK. This overrides any settings of the Function Keypad and stops the asphalt pump when the PUMP CONTROL switch is in AUTO.

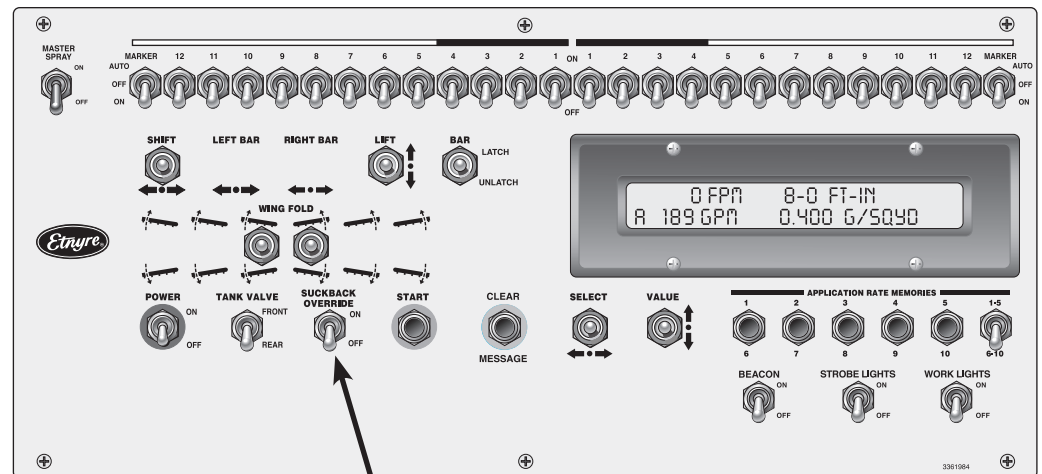
When ON, this switch overrides the current setting of the Function keypad in the rear panel to the SUCK BACK selection.

The SUCK BACK OVERRIDE must be OFF for the Function keypad and the PUMP CONTROL switch to work correctly.

The following steps are performed in the cab while the Function keypad is turned to BAR CIRCULATE.

1. Turn the SUCK BACK OVERRIDE switch ON.
2. Press START. The pump will start turning at the preset rate. 200 GPM is recommended.
3. If complete bar suck back is desired, follow the instructions for bar suck back.
4. Turn the SUCK BACK OVERRIDE switch OFF.
5. Press START. The pump will start turning at the desired circulation rate.

Note: The pump can be stopped and the automatic tank valve can be closed immediately at any time during operation by turning the POWER switch OFF. Before turning the POWER switch back ON, turn the PUMP SPEED to zero if the PUMP CONTROL switch is in MANUAL, to prevent the pump from turning.



Suck Back Override Switch



# Control Panels

## 1. SPRAY Switch

Turning this switch to ON when the Function keypad (rear panel) is turned to BAR CIRCULATE or SUCK BACK, opens all activated spray valves.

## 2. START Button

Starts the asphalt pump turning at the target pump rate or starts calibration operations in the setup screens.

## 3. POWER Switch

Both the POWER switch in the cab and the EMERGENCY STOP switch in the rear panel must be ON for the control system to be ON. The entire system can be shut down by turning either switch to OFF. Before turning either switch ON be sure you know what will automatically activate.

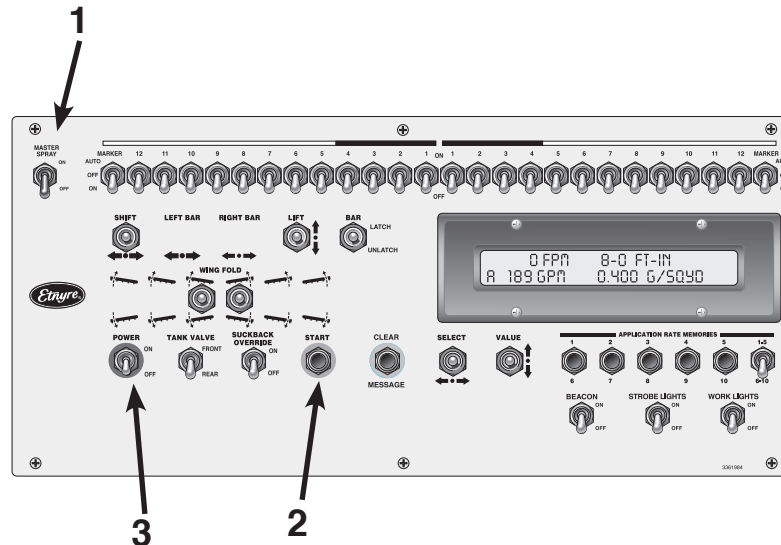
## 4. PUMP SPEED Control Knob

When MANUAL PUMP CONTROL is selected, turning this knob to the right (clockwise) increases the asphalt pump speed.

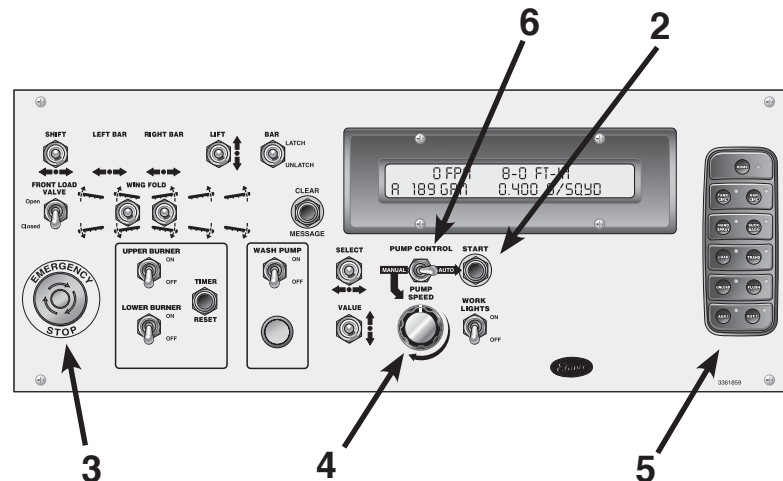
It is possible to over-speed the asphalt pump in MANUAL control since the asphalt pump speed is also dependent on the engine speed. Always turn the knob back to the left (counter-clockwise) before selecting AUTO PUMP CONTROL or turning on the POWER switch in the cab or the EMERGENCY STOP switch in the rear panel. Push Start button to activate pump control in either manual or auto.

## 5. Keypad

When the desired operation is selected through this keypad, all automatic valves - tank valve, 4-way valve, bar suck back valves, return valve and balance valves (Big Bar only) - are set for the desired operation. The asphalt pump stops, and, when the PUMP CONTROL is in AUTO, the stored asphalt pump rate target preset for the desired operation is recalled.



Cab Control Panel



Rear Control Panel

Changing the selection after the pump is turning will stop the asphalt pump whether in AUTO or MANUAL control.

When BAR CIRC (Bar Circulate) is selected, the asphalt pump rate target is calculated based on the displayed spray width, application rate, and the setting of the %CIRC factor.

For all positions of this keypad, except BAR CIRC (Bar Circulate), the asphalt pump rate preset can be set to operator preference by first selecting AUTO PUMP CONTROL. Then, before pressing the START button, change the pump rate target to the desired rate, then press the START button to save the desired rate and start the pump turning.

The factory pump rate target presets are (With Metric equivalents also):

- LOAD 100 GPM
- TANK CIRCULATE 150 GPM
- SUCK BACK 200 GPM
- FLUSH 100 GPM
- UNLOAD 100 GPM
- HAND SPRAY and AUX 50 GPM
- TRANSFER 100 GPM

## 6. PUMP CONTROL Switch

With the switch turned to AUTO, the asphalt pump speed is controlled at the desired rate through the computer which limits the maximum pump speed to 400 GPM.

When the Function Keypad is set to BAR CIRC (Bar Circulate), the pump speed is limited to a maximum of 120 GPM.

With the switch turned to MANUAL, the asphalt pump speed is controlled with the PUMP SPEED control knob.

In AUTO control, A flashes until the START button is pressed. In MANUAL control, M flashes until the START button is pressed.

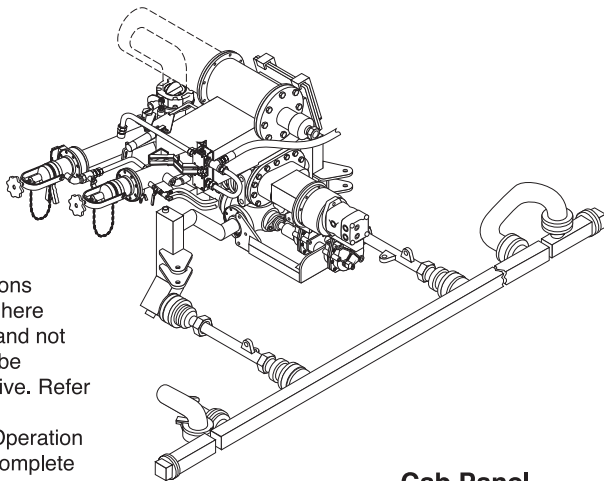
Use the Black-Topper Computator App when spraying in MANUAL control ([www.etsyre.com](http://www.etsyre.com)).

# Load through Manhole

## ⚠ WARNING

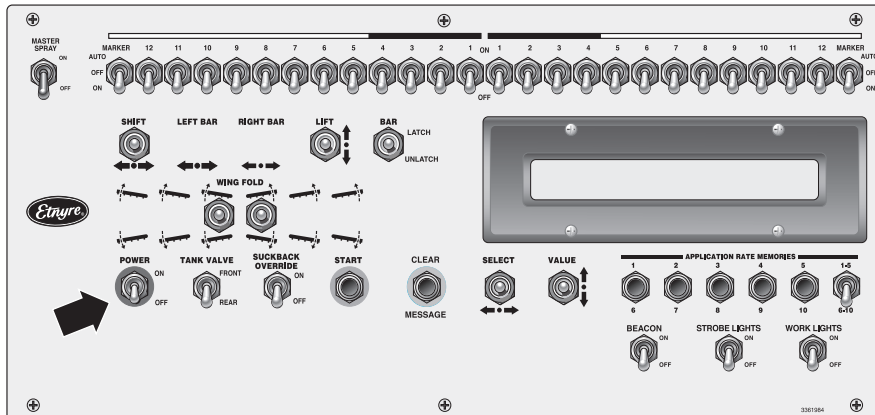
To prevent possible injury, always open the manhole cover slowly. Pressure build up in the tank may cause the cover to burst open.

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

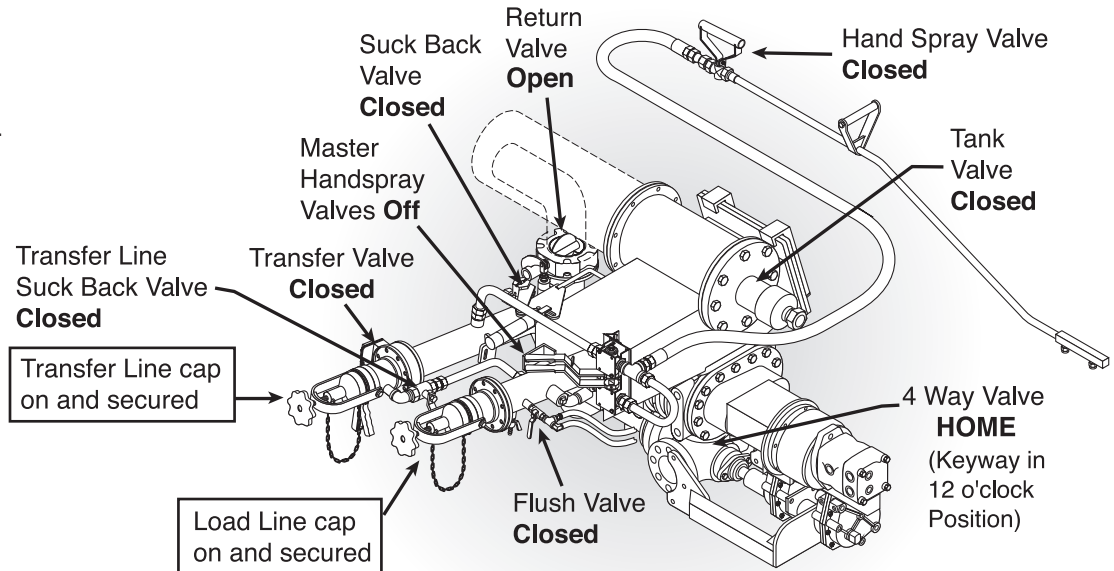
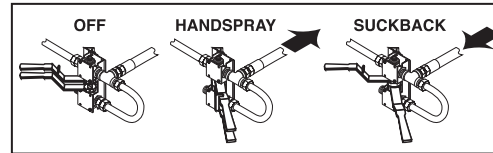


### Cab Panel

- POWER Switch OFF

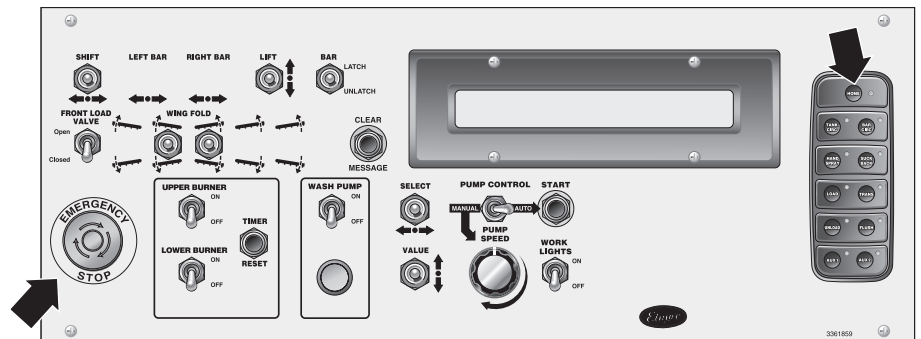


### Handspray Valve Positions

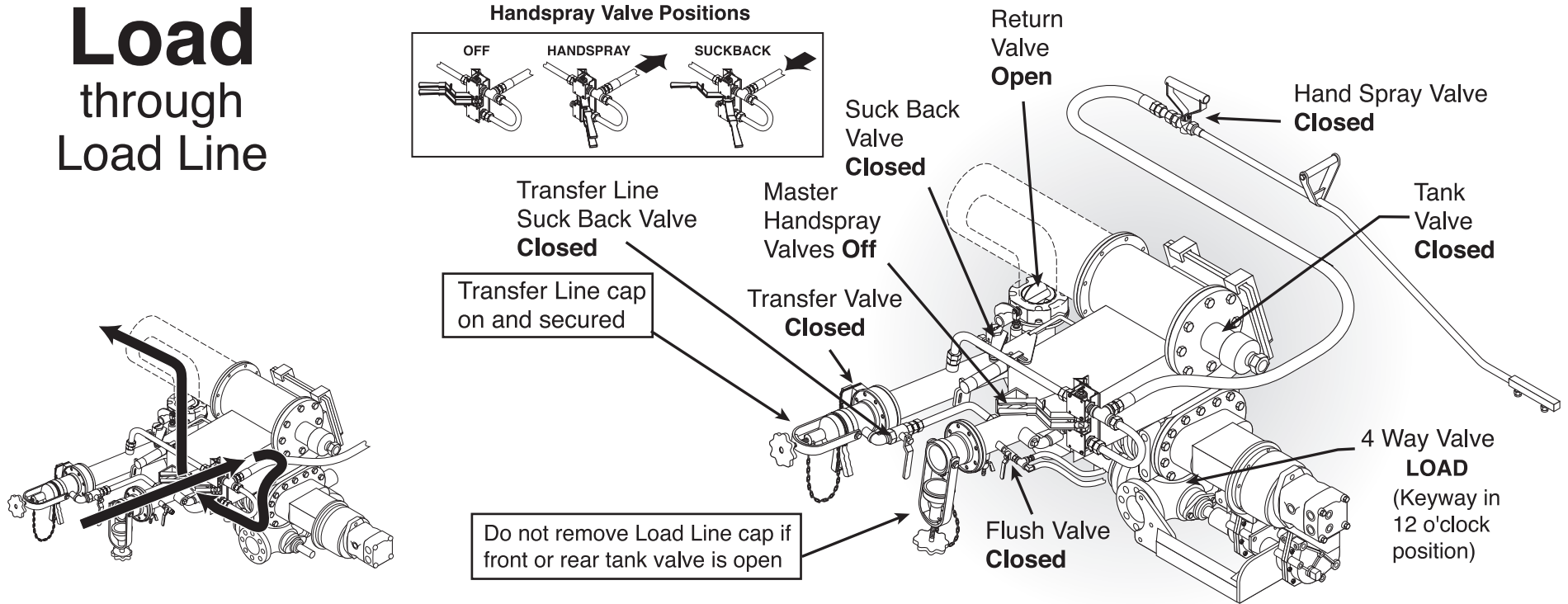


### Rear Panel

- Press HOME on Function Keypad
- POWER Switch OFF



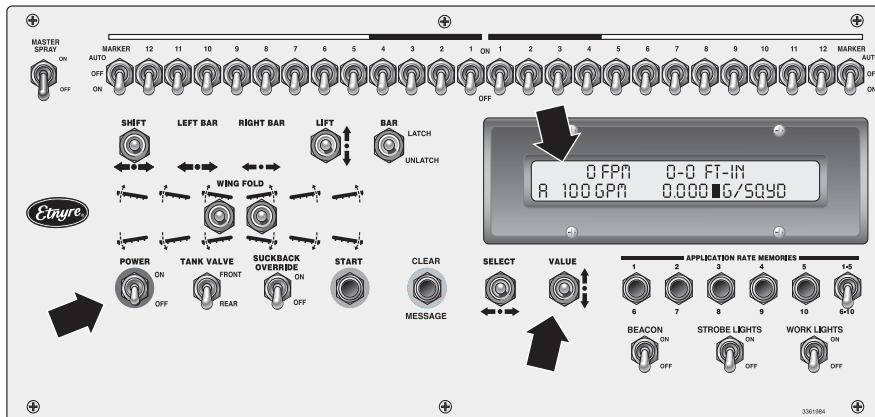
# Load through Load Line



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

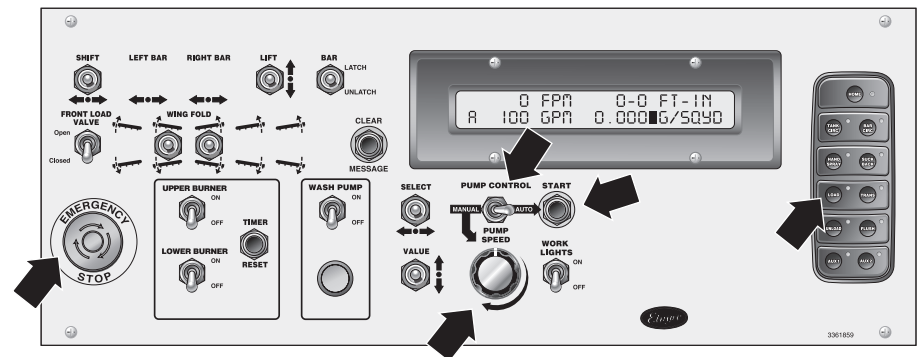
## Cab Panel

- POWER Switch ON
- 100 GPM - adjust using VALUE switch

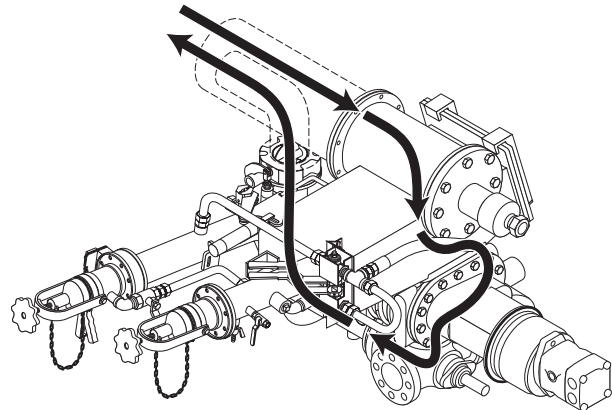


## Rear Panel

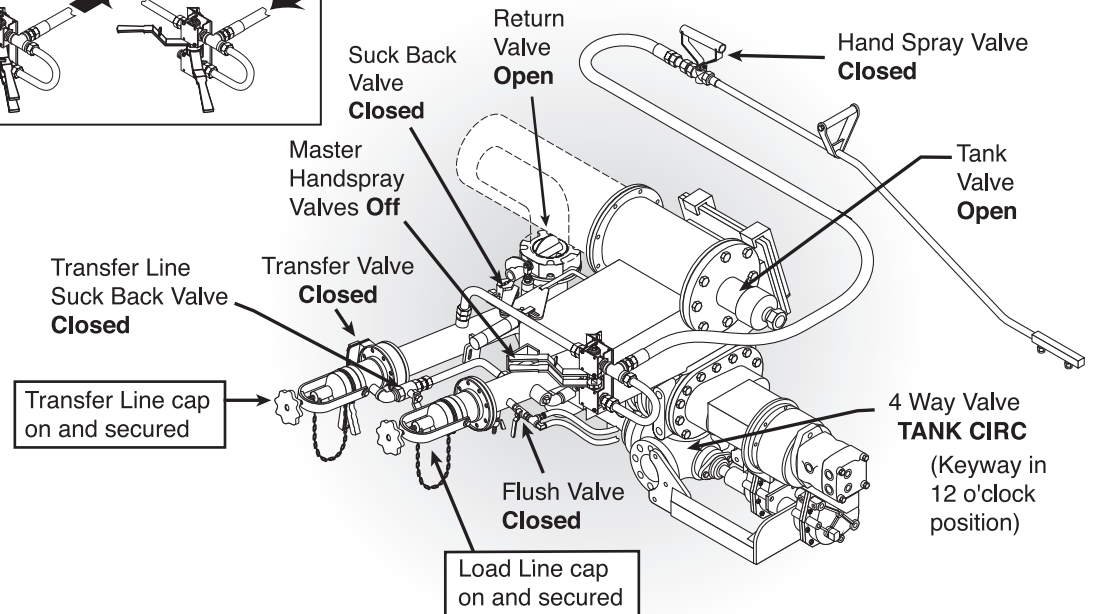
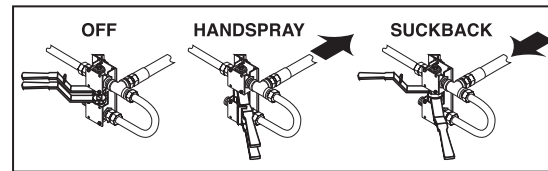
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press LOAD on Function keypad
- Push "START" switch



# Circulate In Tank



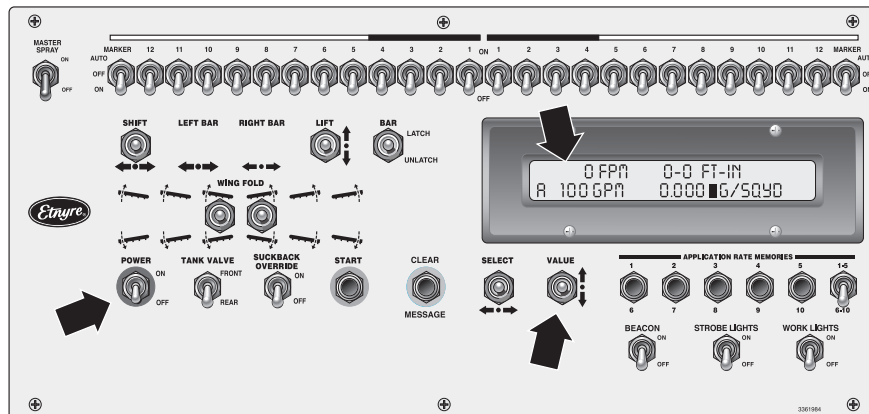
## Handspray Valve Positions



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

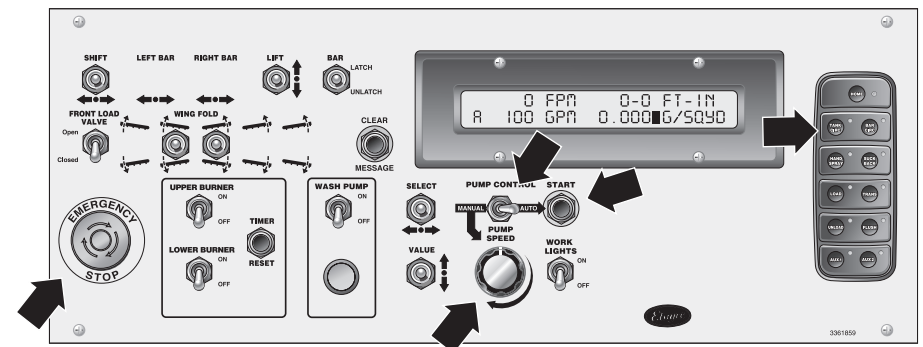
## Cab Panel

- POWER Switch ON
- 100 to 150 GPM - adjust using VALUE switch



## Rear Panel

- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press TANK CIRCULATE on Function keypad
- Push "START" switch

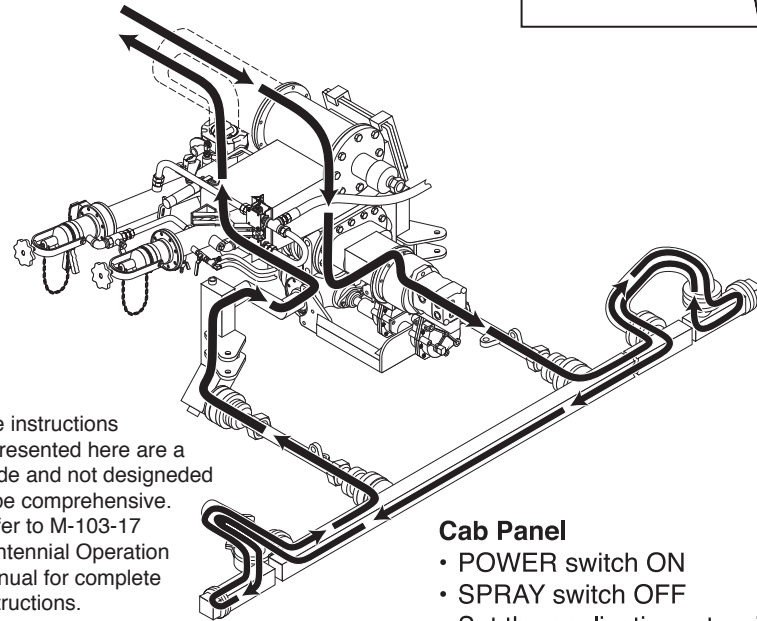
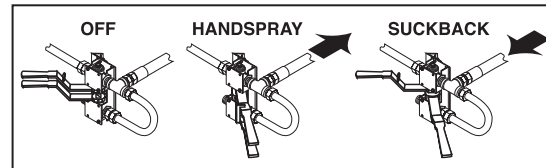




# Circulate In Bar

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

## Handspray Valve Positions



Transfer Line Suck Back Valve Closed

Transfer Valve Closed

Master Handspray Valves Off

Load Line cap on and secured

Transfer Line cap on and secured

Return Valve Open

Suck Back Valve Closed

Hand Spray Valve Closed

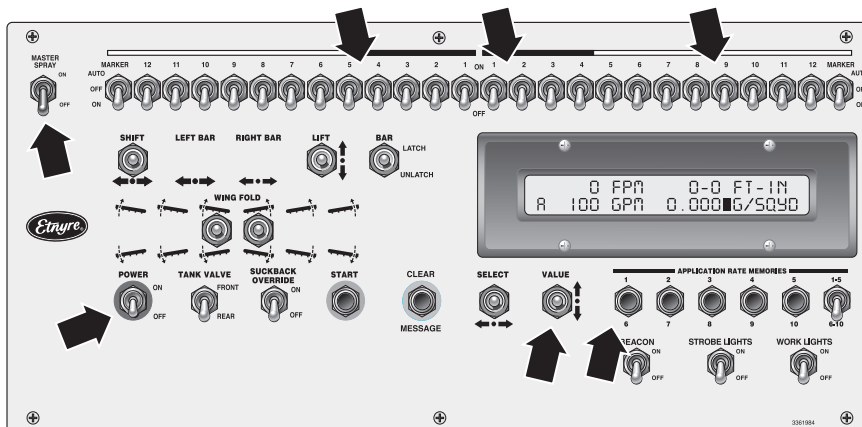
Tank Valve Open

4 Way Valve **BAR CIRC**  
(Keyway in 9 o'clock position)

Flush Valve Closed

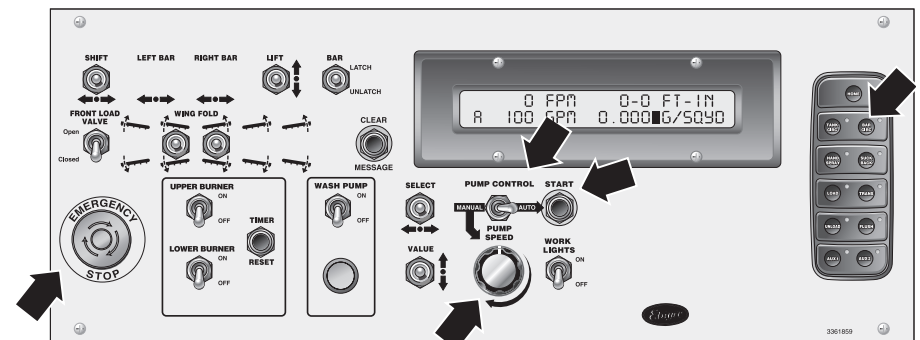
## Cab Panel

- POWER switch ON
- SPRAY switch OFF
- Set the application rate with a MEMORY switch or by using the VALUE switch
- Set spray width with One Foot switches



## Rear Panel

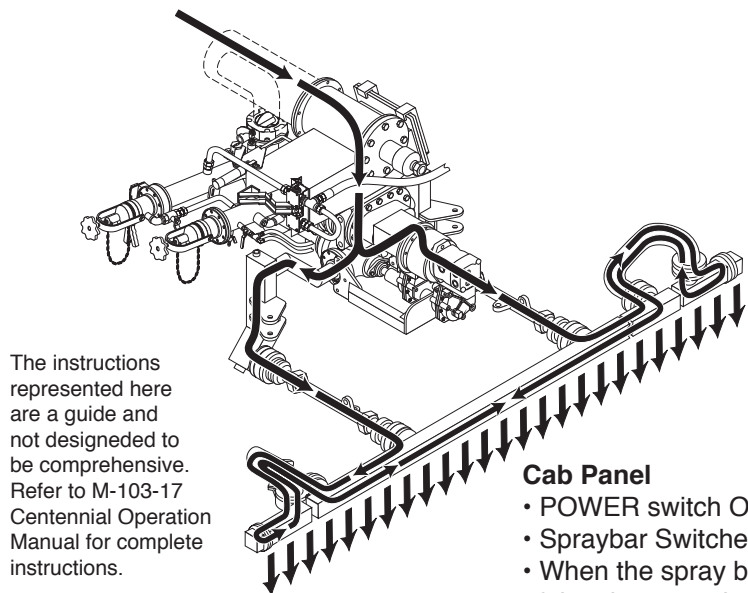
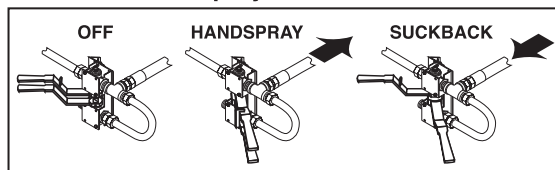
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press BAR CIRCULATE on Function keypad
- Push "START" switch



# Spray

NOTE: Unit should already be operating in Bar Circulate and circulating oil to be ready to spray

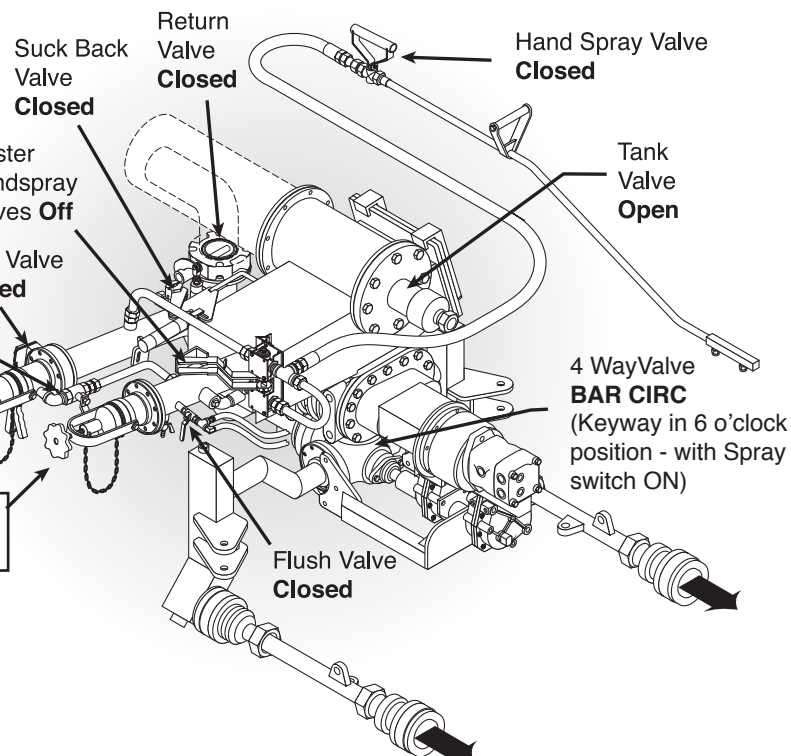
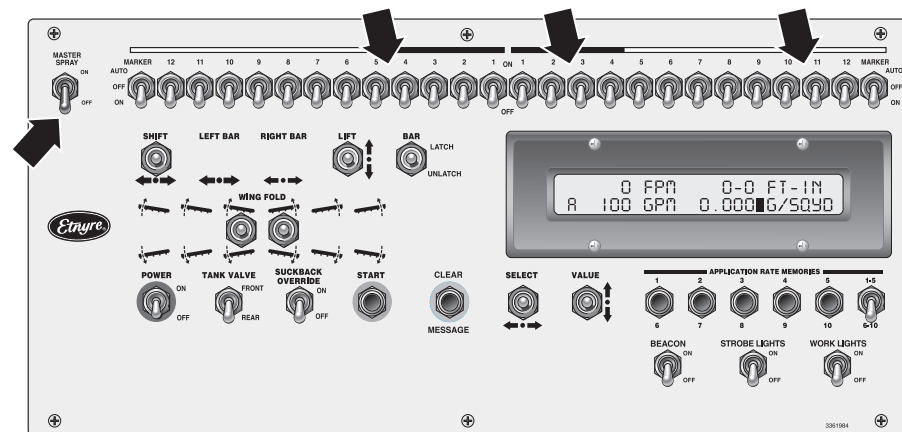
## Handspray Valve Positions



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

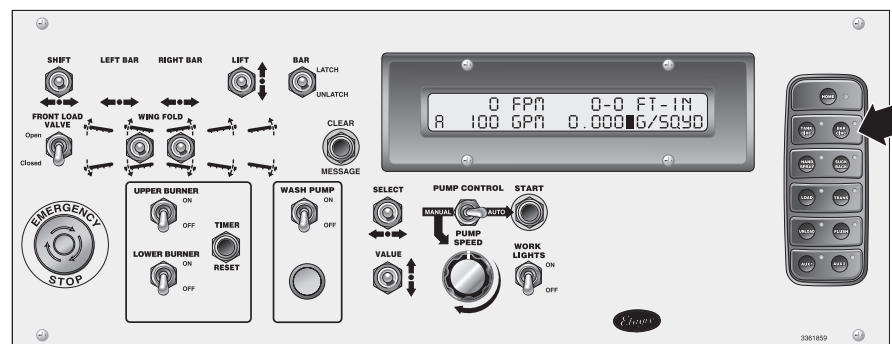
## Cab Panel

- POWER switch ON
- Spraybar Switches (as desired) "ON"
- When the spray bar reaches the beginning of the shot, turn the SPRAY switch ON, turn the switch OFF at the end of the shot.



## Rear Panel

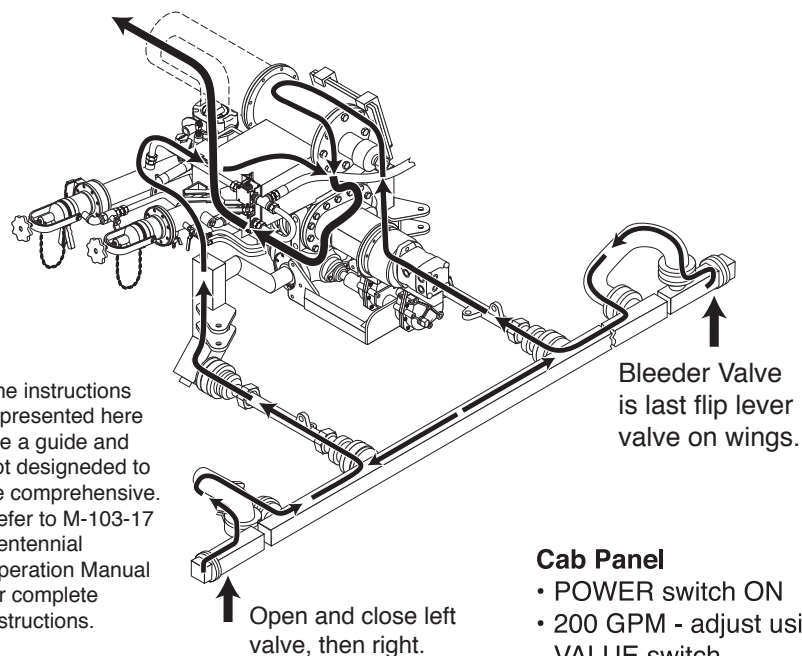
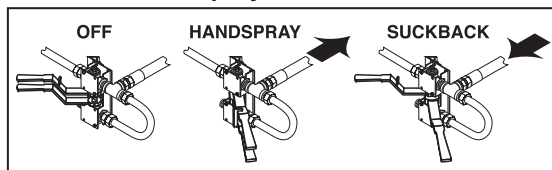
- POWER switch (E Stop) ON
- Press BAR CIRCULATE on Function keypad





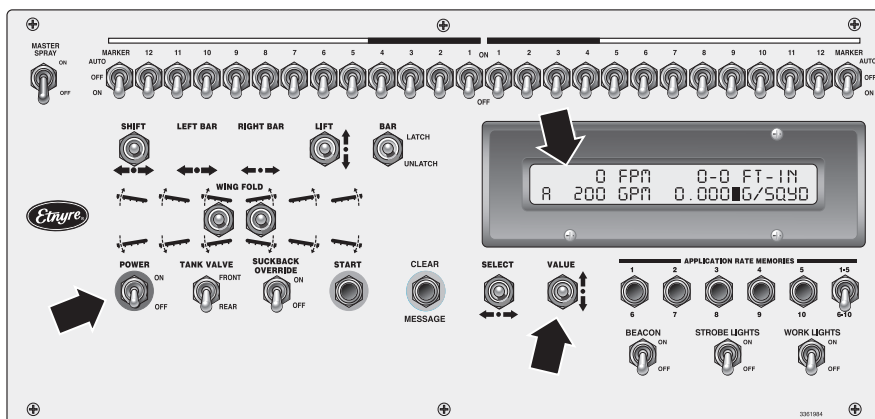
# Suckback Spraybar

## Handspray Valve Positions



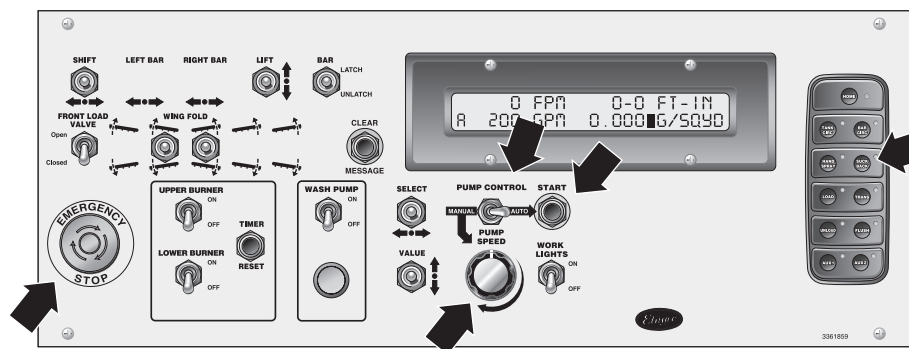
## Cab Panel

- POWER switch ON
- 200 GPM - adjust using VALUE switch



## Rear Panel

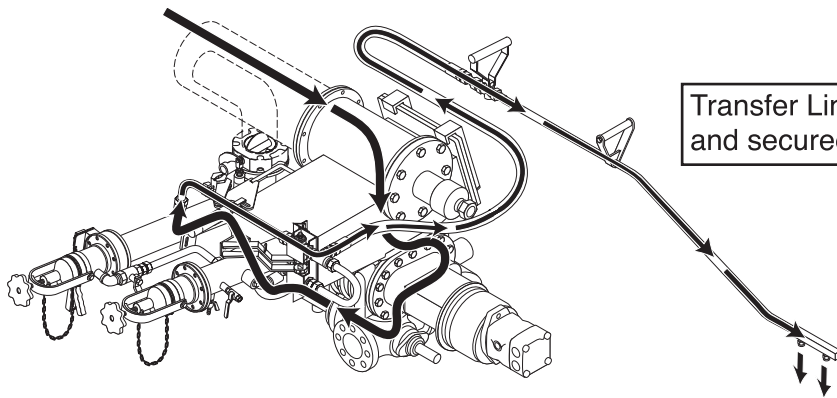
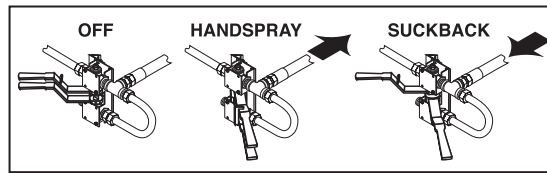
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press SUCKBACK on Function keypad
- Push "START" switch



# Handspray

For safety reasons, it is recommended to use Auto function while handspraying.

## Handspray Valve Positions



Transfer Line cap on and secured

Transfer Line Suck Back Valve Closed

Master Handspray Valves Handspray

Transfer Valve Closed

Suck Back Valve Closed

Return Valve Closed

Hand Spray Valve Open

Tank Valve Open

Flush Valve Closed

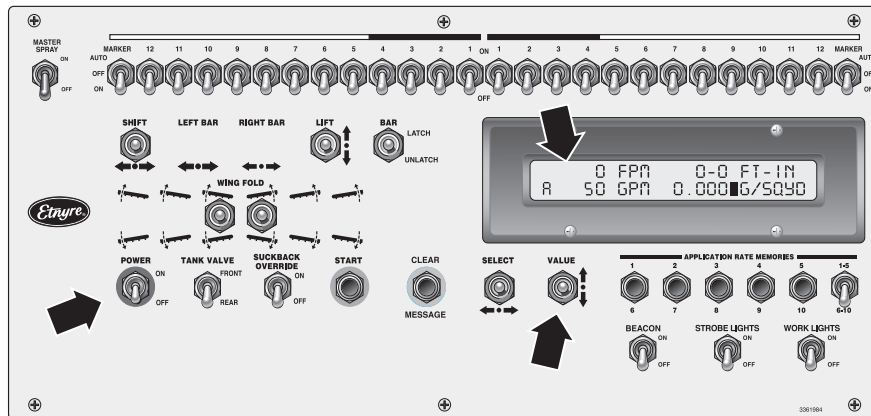
Load Line cap on and secured

4 Way Valve HAND SPRAY (Keyway in 12 o'clock position)

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

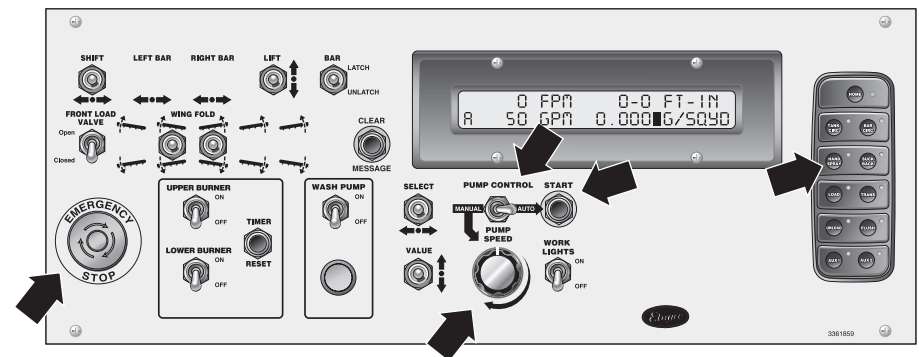
## Cab Panel

- POWER switch ON
- 50 GPM - adjust using VALUE switch



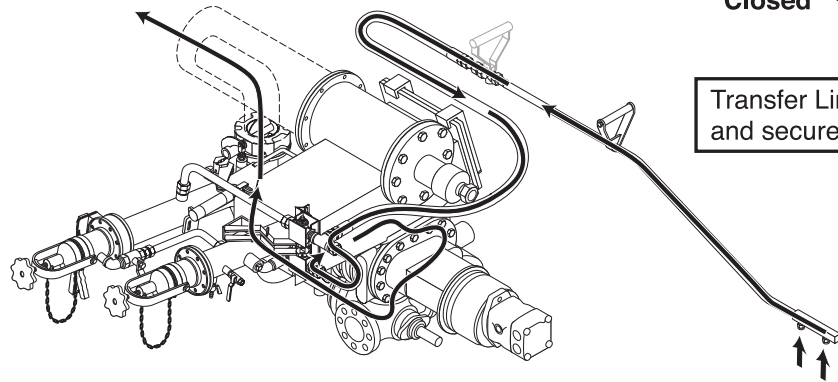
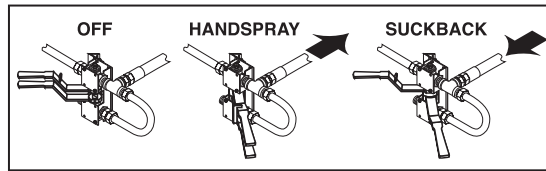
## Rear Panel

- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press HANDSPRAY on Function keypad
- Push "START" switch



# Suckback Handspray

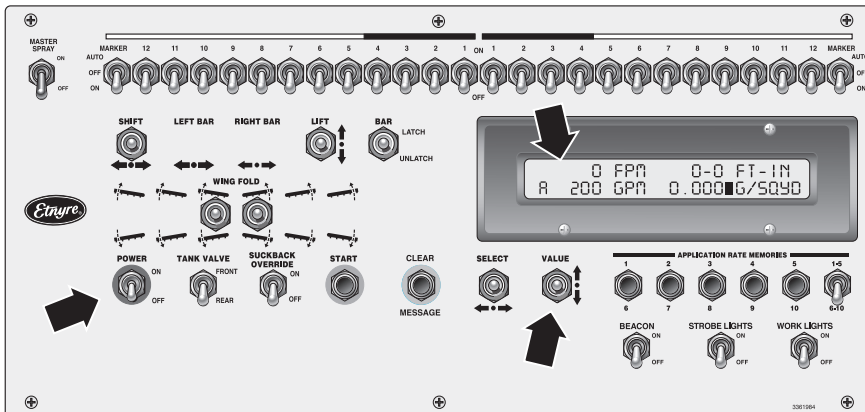
## Handspray Valve Positions



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

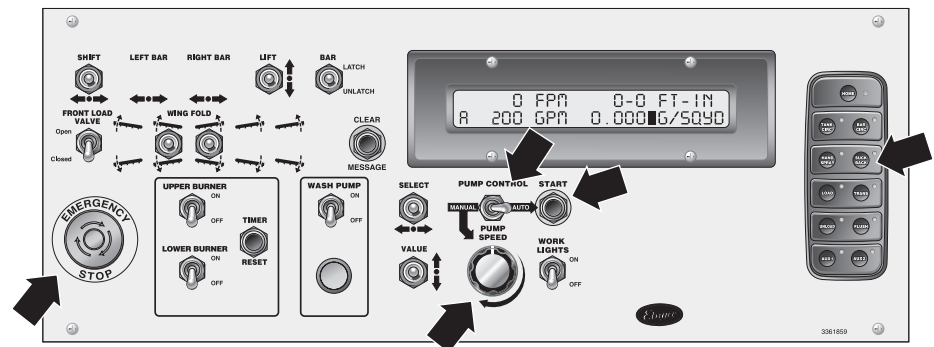
## Cab Panel

- POWER switch ON
- 200 GPM - adjust using VALUE switch

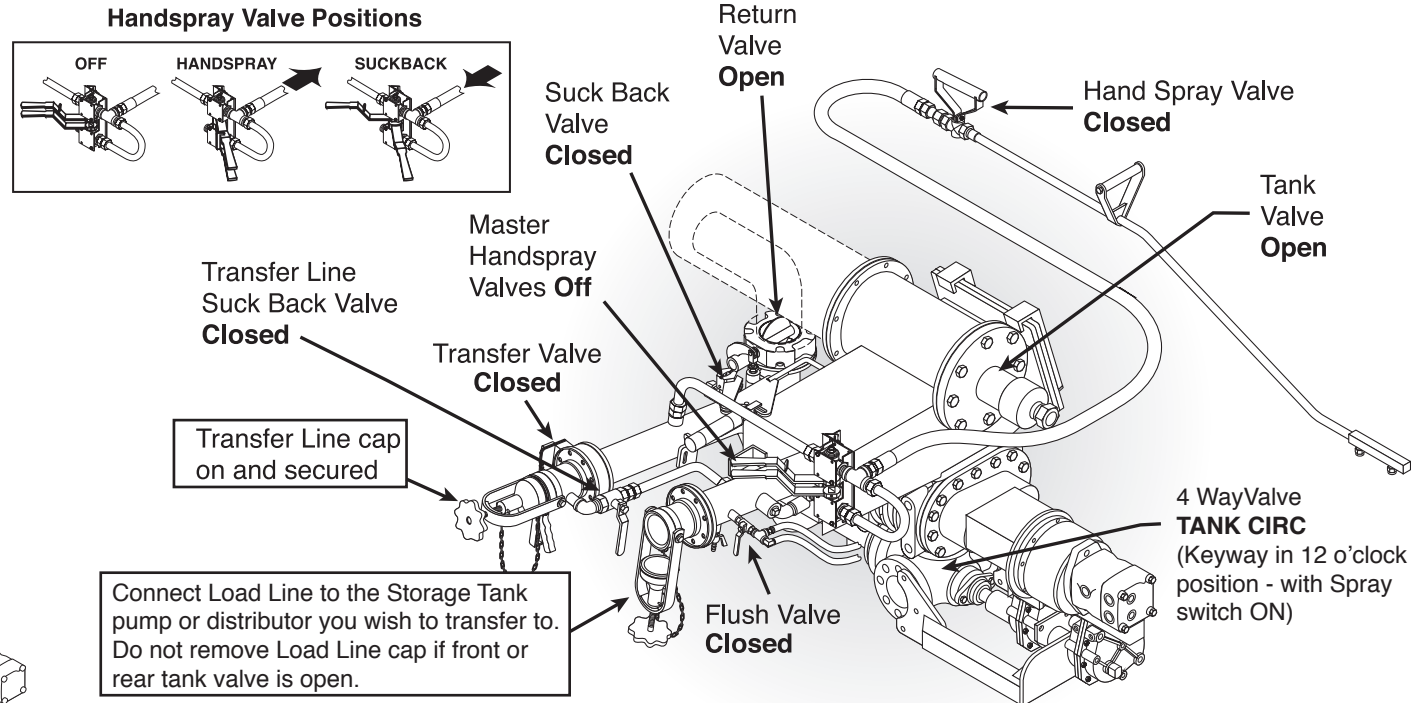
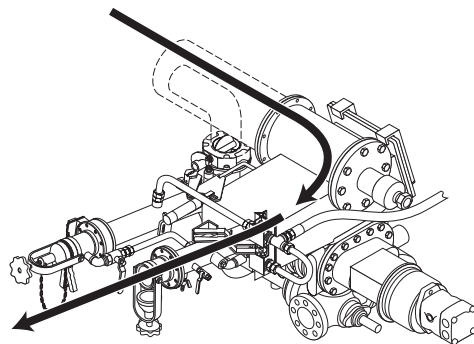


## Rear Panel

- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press SUCKBACK on Function keypad
- Push "START" switch



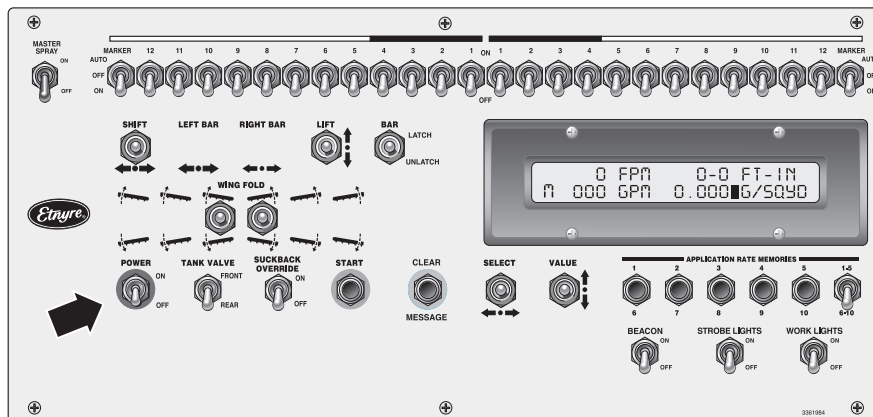
# Unload with External Pump or (Gravity)



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

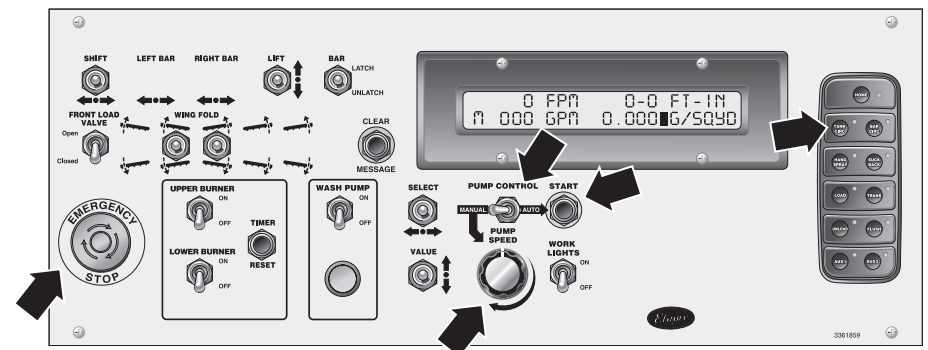
## Cab Panel

- POWER Switch ON



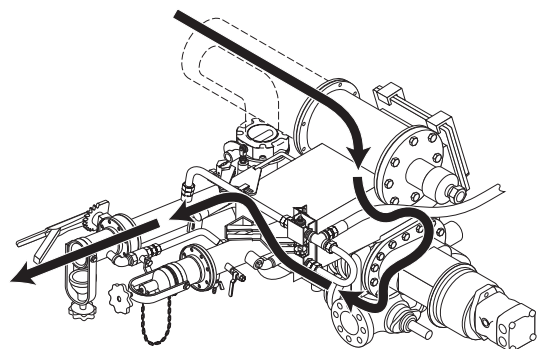
## Rear Panel

- POWER switch (E Stop) ON
- PUMP CONTROL switch MANUAL
- PUMP SPEED knob zero (fully counterclockwise)
- Press TANK CIRC button on Function Keypad
- Push "START" switch
- Operate pump @ 10 GPM in Manual to allow pump to circulate material to prevent pump from getting too cold (if possible).

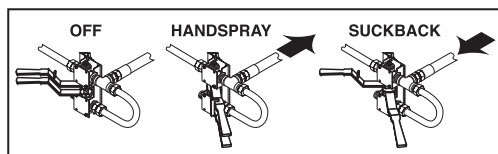




# Unload with Distributor Pump



## Handspray Valve Positions



Transfer Line  
Suck Back Valve  
**Closed**

Master  
Handspray  
Valves **Off**

Transfer Valve  
**Open**

Suck Back  
Valve  
**Closed**

Return  
Valve  
**Closed**

Hand Spray Valve  
**Closed**

Tank  
Valve  
**Open**

Connect transfer line to the  
storage tank.  
Do not remove Transfer  
Line cap if front or rear tank  
valve is open or if asphalt  
pump is turning

Load Line cap  
on and secured

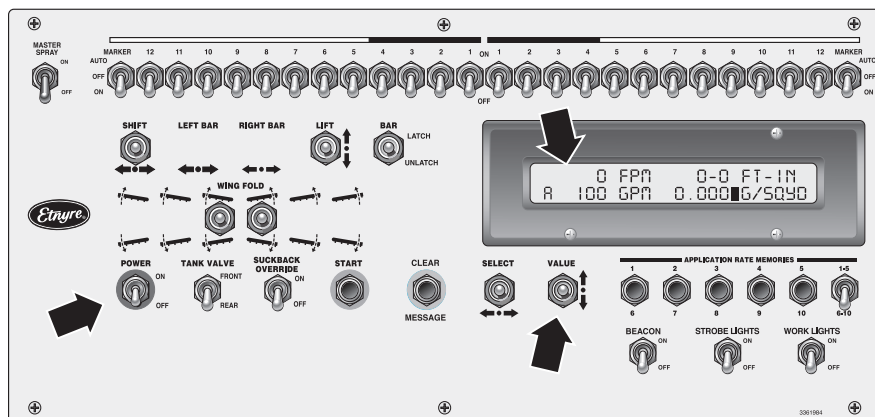
Flush Valve  
**Closed**

4 Way Valve  
**UNLOAD**  
(Keyway in  
12 o'clock  
position)

The instructions represented here  
are a guide and not designed  
to be comprehensive. Refer to  
M-103-17 Centennial Operation  
Manual for complete instructions.

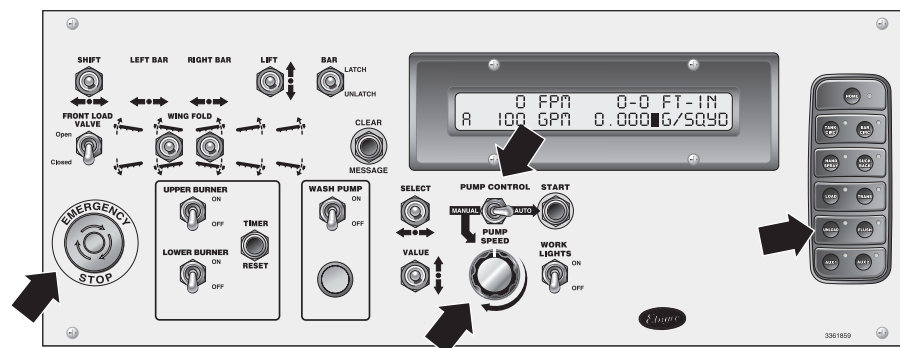
## Cab Panel

- POWER Switch ON
- 100 GPM - Adjust using  
VALUE switch

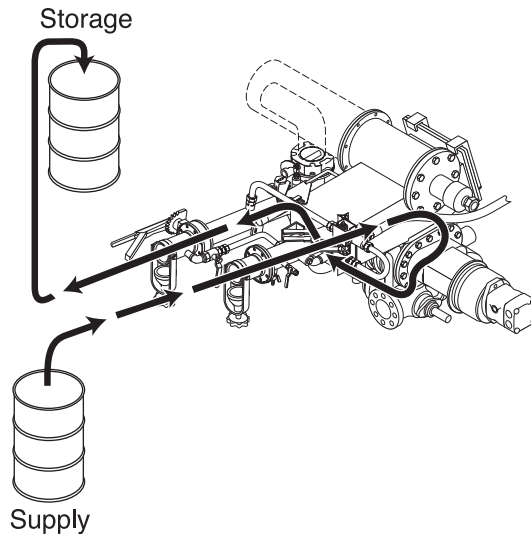


## Rear Panel

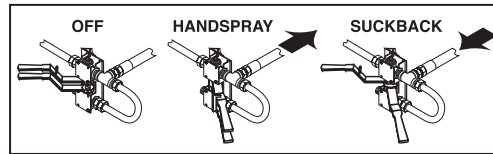
- POWER switch (E Stop) ON
- Press UNLOAD on Function keypad
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Push "START" switch



# Transfer Pump

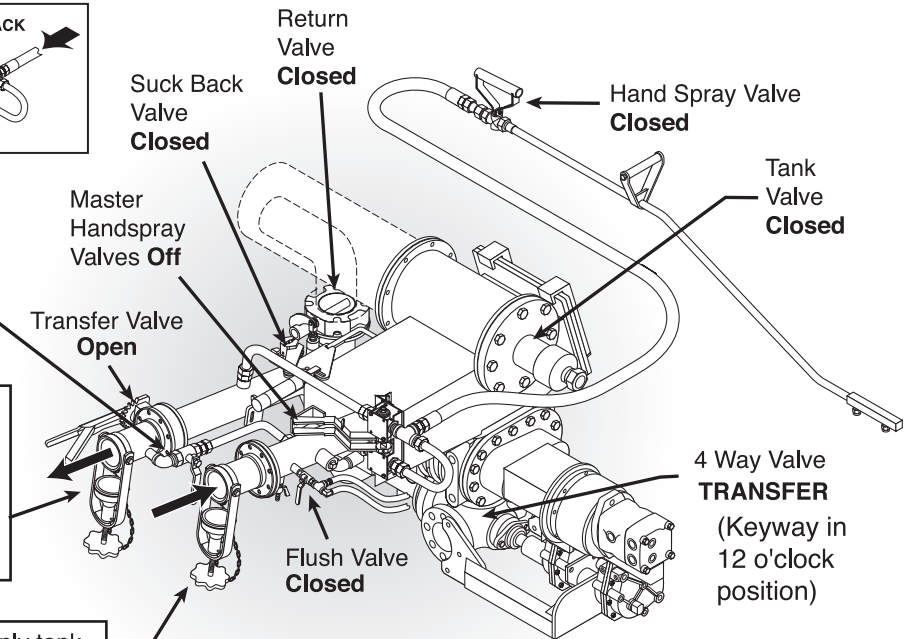


## Handspray Valve Positions



Connect Transfer Line to the storage tank.  
Do not remove Transfer Line cap if front or rear tank valve is open or if asphalt pump is turning.

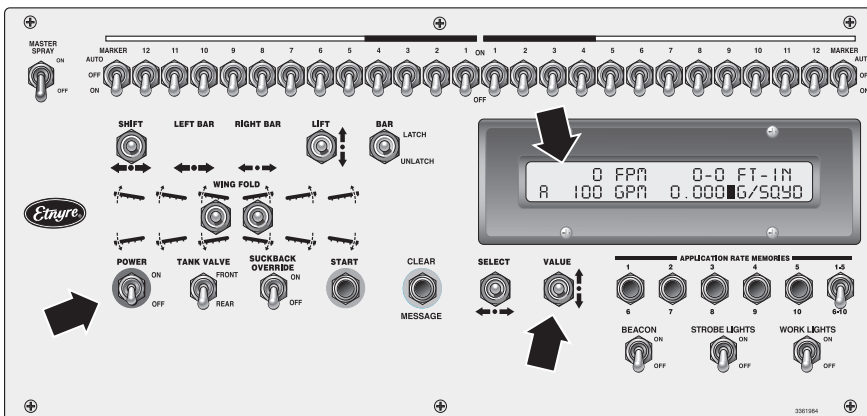
Connect Load Line to the supply tank.  
Do not remove Load Line cap if front or rear tank valve is open.



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

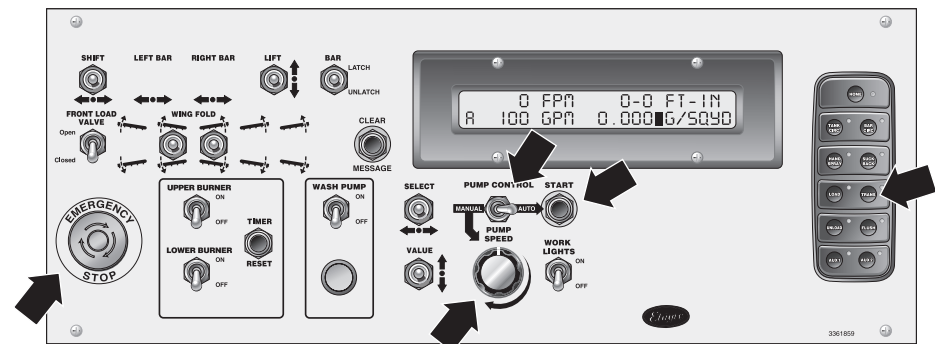
## Cab Panel

- POWER Switch ON
- 100 GPM - adjust using VALUE switch



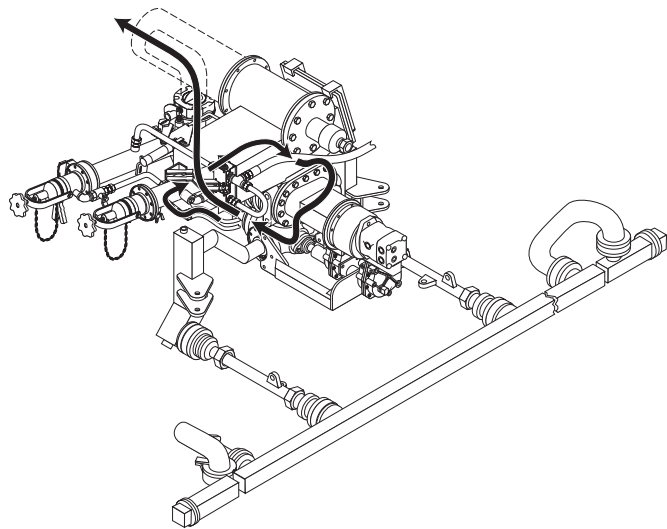
## Rear Panel

- POWER switch (E Stop) ON
- Press TRANSFER on Function keypad
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Push "START" switch



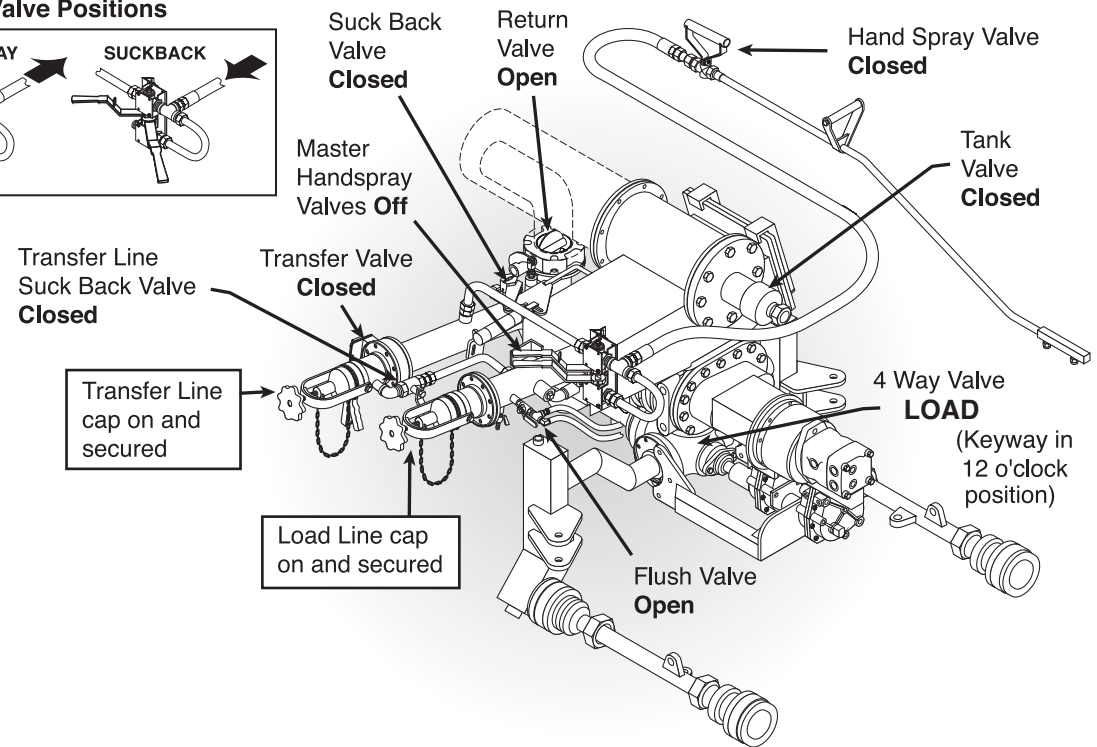
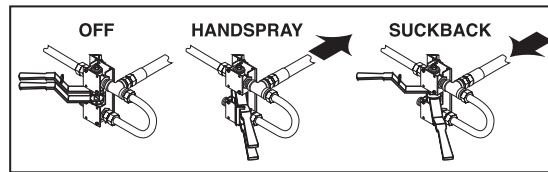


# Flushing Pump



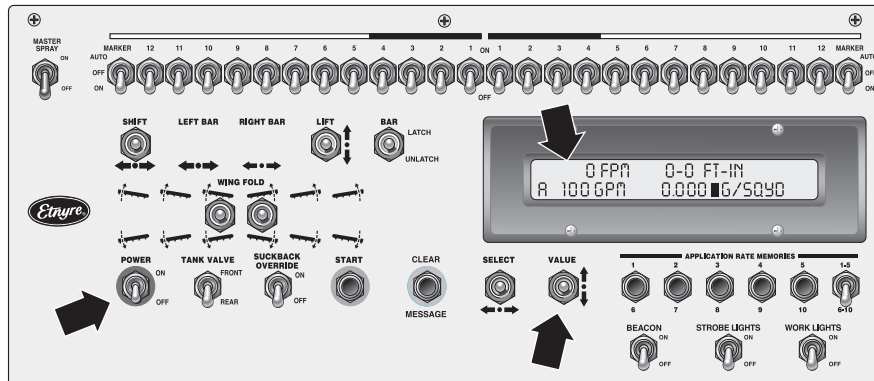
The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

## Handspray Valve Positions



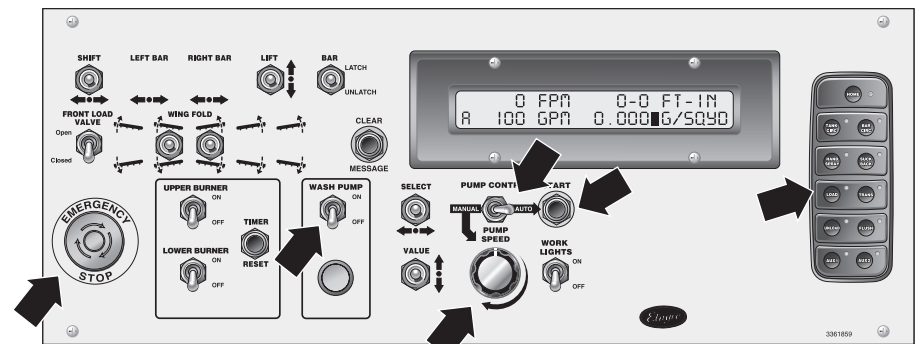
## Cab Panel

- POWER Switch ON
- 100 GPM - adjust using VALUE switch



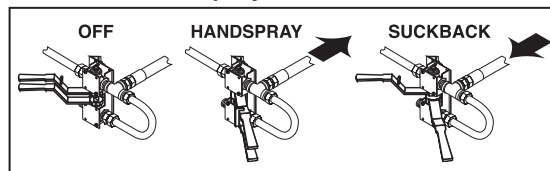
## Rear Panel

- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Press LOAD on Function keypad
- Push "START" switch
- WASH PUMP switch (optional) - ON

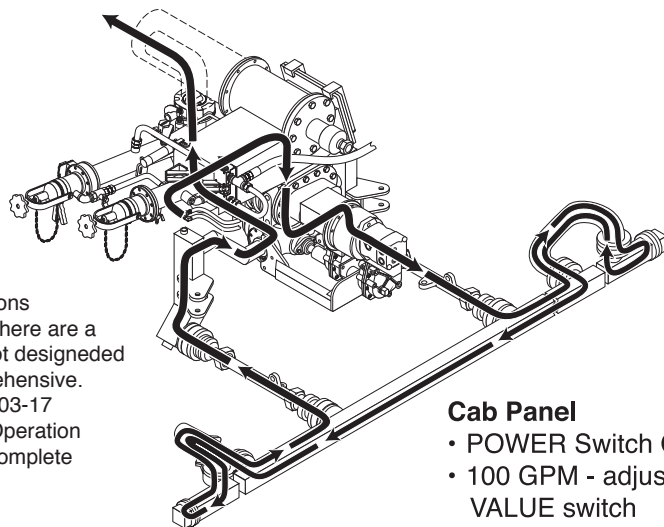


# Flushing Bar

## Handspray Valve Positions



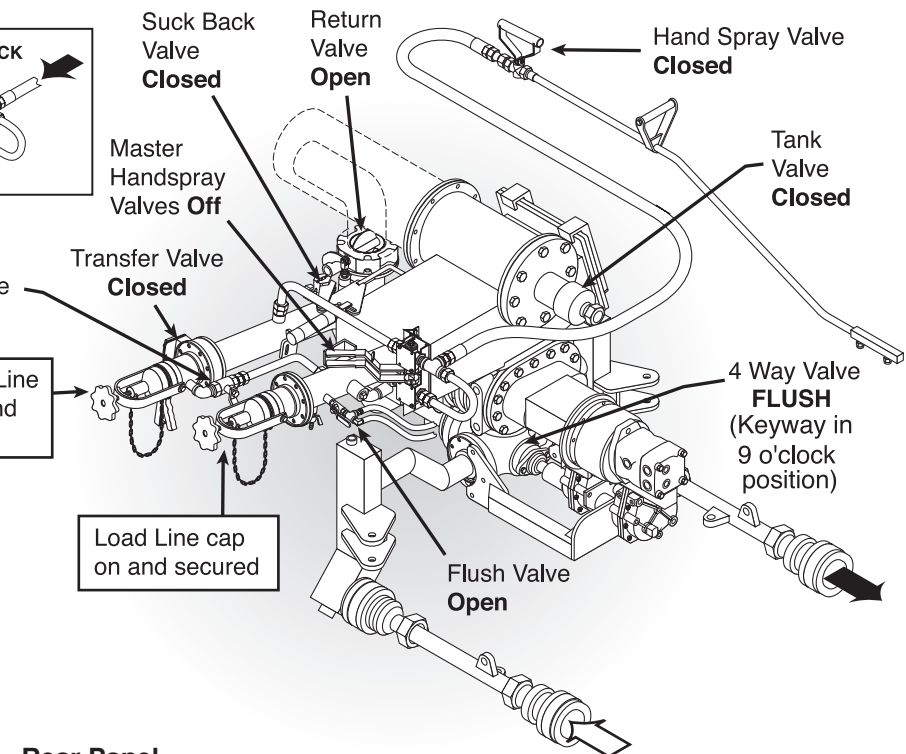
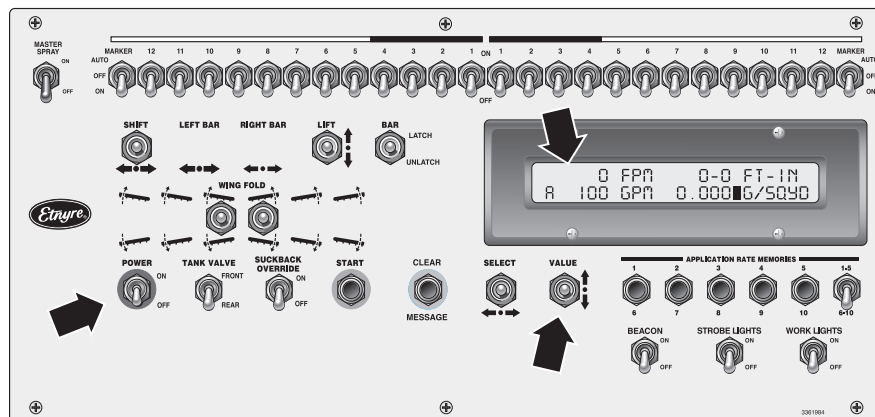
AUTO - computer controls circulation rate preselected by the computer.  
MANUAL - Operator controls pump speed with pump speed knob.  
See M-103-17 "Bar Flush (Manual)" for instructions.



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

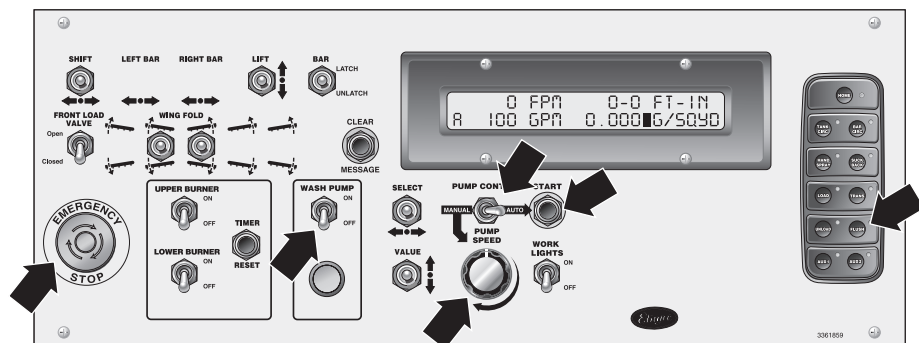
## Cab Panel

- POWER Switch ON
- 100 GPM - adjust using VALUE switch

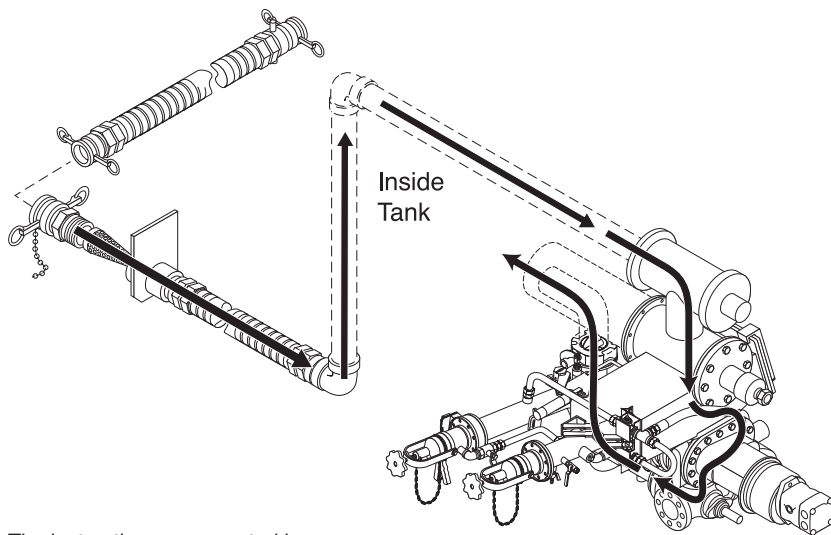


## Rear Panel

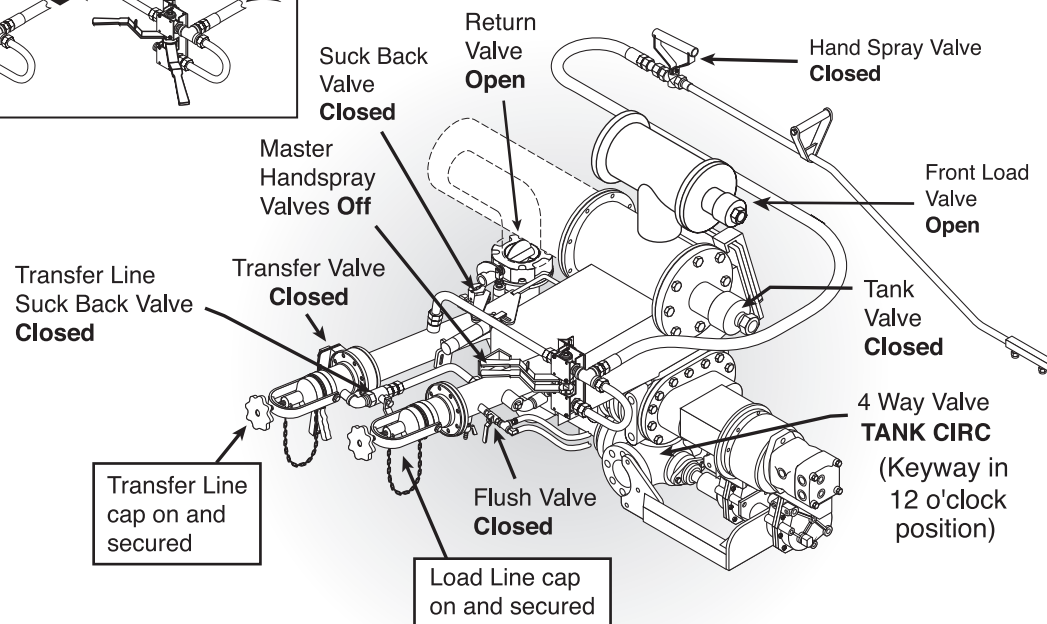
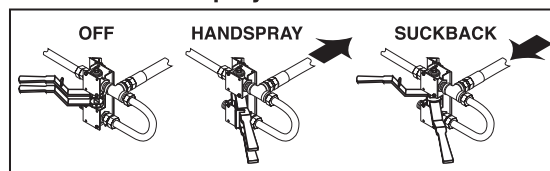
- POWER switch (E Stop) ON
- Press FLUSH on Function keypad
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Push "START" switch
- WASH PUMP switch (optional) - ON



# Front Load (optional equipment)



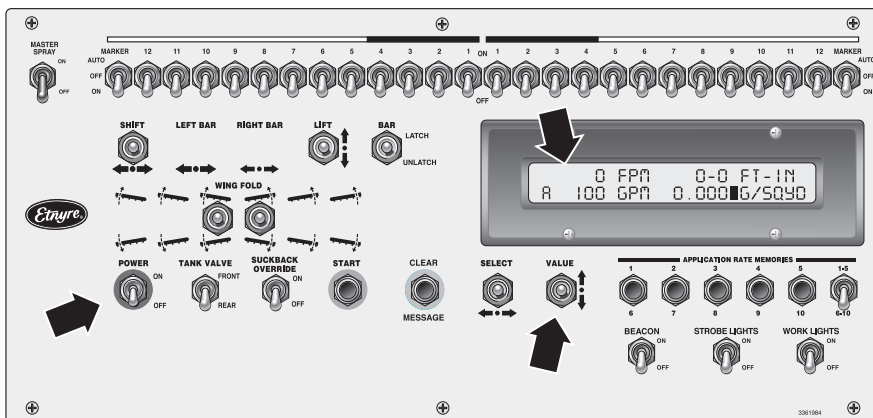
## Handspray Valve Positions



The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-17 Centennial Operation Manual for complete instructions.

## Cab Panel

- POWER Switch ON
- 100 GPM - adjust using VALUE switch



## Rear Panel

- POWER switch (E Stop) ON
- Press TANK CIRC on Function keypad
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- FRONT LOAD switch (optional) - OPEN
- Push "START" switch

