Centennial
Flow Charts and Control Positions

Standard Spraybar
with BT-1 Controls
<table>
<thead>
<tr>
<th>Ref.</th>
<th>Part No.</th>
<th>Description</th>
<th>Application Gallons Per Square Yard</th>
<th>Application (Metric) Liters Per Square Meter</th>
<th>US Flow Gallons Per Minute Per Foot</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>3353788</td>
<td>V Slot Tack Nozzle 1/8&quot; Rifle Bored</td>
<td>.05 - .20</td>
<td>.23 - .91</td>
<td>3.0 to 4.5</td>
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<td>3351013*</td>
<td>V Slot Tack Nozzle 1/16&quot; Coin Slot</td>
<td>.05 - .20</td>
<td>.23 - .91</td>
<td>3.0 to 4.5</td>
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<td>3354904</td>
<td>V Slot Tack Nozzle 1/8&quot; Counterbored</td>
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<td>.23 - .91</td>
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<td>2</td>
<td>3351008</td>
<td>S36-4 V Slot</td>
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<td>.45 - 1.58</td>
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<td>3</td>
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<td>S36-5 V Slot</td>
<td>.18 - .45</td>
<td>.81 - 2.04</td>
<td>7.0 to 10.0</td>
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<td>4</td>
<td>3352368</td>
<td>Multi-Material V Slot</td>
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<td>.68 - 1.81</td>
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<td>5</td>
<td>3351015</td>
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<td>1.58 - 4.30</td>
<td>12.0 to 21.0</td>
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<td>3355154</td>
<td>End Nozzle (use with 3352204 nozzle)</td>
<td>.35 - .95</td>
<td>1.58 - 4.30</td>
<td>12.0 to 21.0</td>
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<td>Multi-Material V Slot</td>
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<td>1.31 - 3.26</td>
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<td>.91 - 2.49</td>
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<td>End Nozzle (use with 3352205 nozzle)</td>
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<td>.91 - 2.49</td>
<td>7.5 to 12.0</td>
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<td>3351014</td>
<td>3/16&quot; Coin Slot</td>
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<td>1/4&quot; Coin Slot</td>
<td>.40 - 1.10</td>
<td>1.81 - 4.98</td>
<td>15.0 to 24.0</td>
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</tbody>
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Important

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12 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-103-12 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 optional 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 knob and stops the asphalt pump when the PUMP CONTROL switch is in AUTO.

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

1. Turn the SUCK BACK OVERRIDE switch ON.
2. Press START. The pump will start turning at the desired rate. 200 GPM is recommended.
3. If complete bar suck back is desired, follow the instructions for bar suck back, beginning with the opening of the left bleeder valve. Otherwise continue to the next step.
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.
1. **SPRAY Switch**
Turning this switch to ON when the Function knob (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 POWER switches, front and rear, must be ON for the system to be ON. The entire system can be shut down by turning either POWER switch to OFF. Before turning either POWER switch to 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 either POWER switches (front or rear).

5. **Function knob**
When the desired operation is selected through this knob, the asphalt pump stops turning if the PUMP CONTROL is in AUTO, and all automatic valves (tank valve, 4-way valve, bar suck back valves, and balance valves) are set for the desired operation. The asphalt pump rate is set to the stored preset for the desired operation.
The factory pump rate presets are:
- LOAD/TRANSFER - 100 GPM
- TANK CIRCULATE - 150 GPM
- BAR SUCK BACK - 200 GPM
- BAR FLUSH - 100 GPM
- UNLOAD - 100 GPM
- HAND SPRAY - 50 GPM
When BAR CIRCULATE is selected, the asphalt pump rate is calculated based on the displayed spray width, application rate, and the setting of the %CIRC factor.

6. **PUMP CONTROL Switch**
With the switch turned to AUTO, the asphalt pump speed is controlled at the desired rate through the computer.
With the switch turned to MANUAL, the asphalt pump speed is controlled with the PUMP SPEED control knob at the desired rate for a specific engine speed.
Load through Manhole

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.

Cab Panel
- POWER Switch OFF

Rear Panel
- Function Switch to HOME position
- POWER Switch OFF

Handspray Valve Positions
- OFF
- HANDSPRAY
- SUCKBACK

Suck Back Valve
- Closed

Transfer Valve
- Closed

Transfer Line cap on and secured

Load Line cap on and secured

Return Valve
- Open

Hand Spray Valve
- Closed

Tank Valve
- Closed

4 Way Valve
HOME (Keyway in 12 o’clock position)
Load through Load Line

**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)
- Function Switch to LOAD position
- Push “START” switch

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.
Circulate In Tank

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.

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

4 Way Valve
- TANK CIRCULATE (Keyway in 12 o'clock position)
- Master Handspray Valves Off
- Transfer Valve Closed
- Transfer Line cap on and secured
- Wash Valve Closed
- Load Line cap on and secured
- Return Valve Open
- Suck Back Valve Closed
- Transfer Line Suck Back Valve Closed

Rear Panel
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Function Switch to TANK CIRCULATE position
- Push "START" switch

Handspray Valve Positions
- OFF
- HANDSPRAY
- SUCKBACK
Circulate In Bar

**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)
- Function Switch to BAR CIRCULATE position
- Push “START” switch

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The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.
**Spray**

**Cab Panel**
- POWER switch (E Stop) 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
- Push START switch
- Function Switch to BAR CIRCULATE position

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

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)
- Function Switch to SUCK BACK position
- Push "START" switch

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.
Handspray

Handspray Valve Positions

ON
OFF
HANDSPRAY
SUCKBACK

12

Transfer Line Suck Back Valve Closed

Transfer Line cap on and secured

Suck Back Valve Closed

Master Handspray Valves Handspray

Transfer Valve Closed

Return Valve Closed

Hand Spray Valve Open

4 Way Valve HANDSPRAY
(Keyway in 12 o’clock position)

Tank Valve Open

Load Line cap on and secured

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R 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)
• Function Switch to HANDSPRAY position
• Push “START” switch
Suckback Handspray

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.

**Cab Panel**
- POWER switch ON
- 200 GPM - adjust with VALUE switch

**Rear Panel**
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Function Switch to SUCKBACK position
- 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-103-12R 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)
- Function Switch to TANK CIRCULATE position
- Push “START” switch
- Operate pump @ 10 GPM in Manual to allow pump to circulate material to prevent pump from getting too cold (if possible).

Connect Load Line to the Storage Tank pump or distributor you wish to transfer to. Do not remove Load Line cap if front or rear tank valve is open.

Handspray Valve Positions
- OFF
- HANDSPRAY
- SUCKBACK

Transfer Line
- Suck Back Valve Closed
- Transfer Line cap on and secured

Flush Valve
- Closed

4 Way Valve
- TANK CIRCULATE (Keyway in 12 o'clock position)

Tank Valve
- Open

Hand Spray Valve
- Closed
Unload (with Pump)

Handspray Valve Positions
- OFF
- HANDSPRAY
- SUCKBACK

Rear Panel
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Function Switch to UNLOAD position
- Push “START” switch

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

Transfer Line
- Suck Back Valve Closed
- Master Handspray Valves Off
- Transfer Valve Open
- 4 Way Valve UNLOAD (Keyway in 12 o’clock position)

Load Line cap on and secured

Do not remove Transfer Line cap if front or rear tank valve is open or if asphalt pump is turning

Transfer Panel
- Hand Spray Valve Open
- Tank Valve Closed

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R Centennial Operation Manual for complete instructions.
Transfer

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-12R 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)
- Function Switch to TRANSFER position
- Push “START” switch

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**Transmit Line Suck Back Valve Closed**

**Return Valve Closed**

**Suck Back Valve Closed**

**Master Handspray Valves Off**

**Transfer Valve Open**

**Flush Valve Closed**

**Hand Spray Valve Closed**

**Tank Valve Closed**

**4 Way Valve TRANSFER** (Keyway in 12 o’clock position)

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

Do not remove Load Line cap if front or rear tank valve is open.
### Flushing Pump

#### 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)
- Function Switch to LOAD position
- Push “START” switch
- WASH PUMP switch (optional) - ON
Flush Bar

**Handspray Valve Positions**
- OFF
- HANDSPRAY
- SUCKBACK

**Rear Panel**
- POWER switch (E Stop) ON
- PUMP CONTROL switch AUTO
- PUMP SPEED knob zero (fully counterclockwise)
- Function Switch to FLUSH position
- Push “START” switch
- WASH PUMP switch (optional) - ON

**Cab Panel**
- POWER Switch ON
- 100 GPM - adjust using VALUE switch

The instructions represented here are a guide and not designed to be comprehensive. Refer to M-103-128 Centennial Operation Manual for complete instructions.
Front Load (optional equipment)

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)
- Function Switch to TANK CIRCULATE position
- FRONT LOAD switch (optional) - OPEN
- Push “START” switch