



Auto Clean

Recirculating Flushing System

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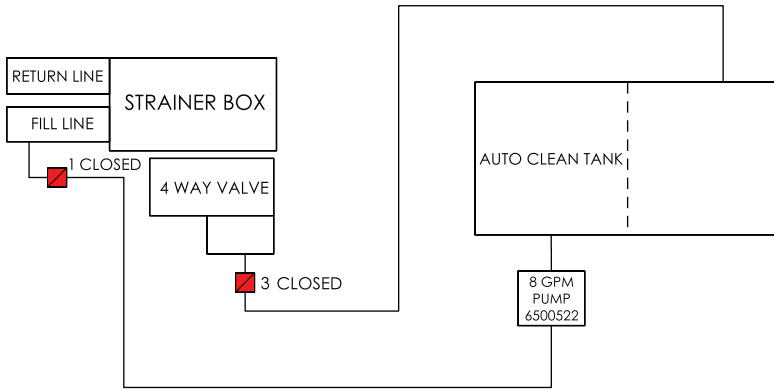


E.D. ETNYRE & CO. – 1333 S. Daysville Road – Oregon, Illinois 61061

Phone: 815-732-2116 or 800-995-2116 – Fax: 800-521-1107 – www.etnyre.com

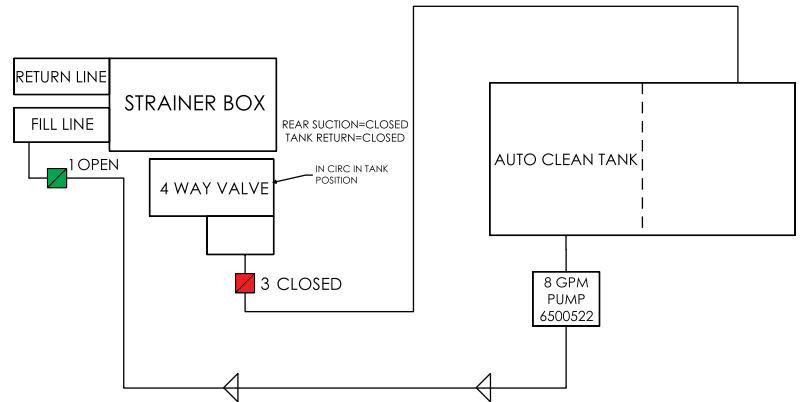
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SYSTEM OFF



■ VALVE = OPEN
■ VALVE = CLOSE

AUTO CLEAN LOAD



SYSTEM NOTES:

STEP 1: SYSTEM WILL RUN A STANDARD SUCKBACK FOR 2 MINUTES AT 200GPM

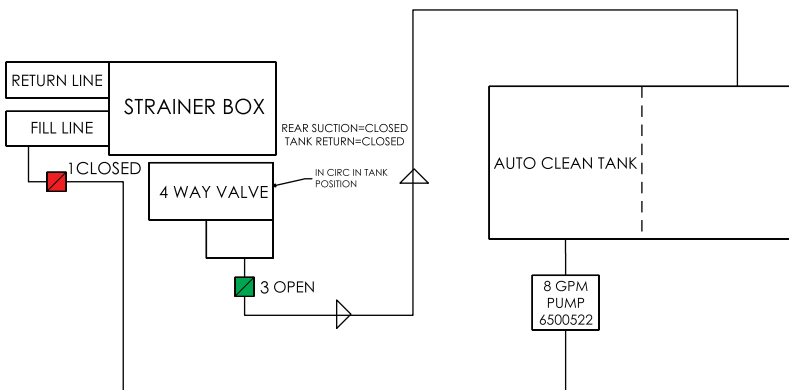
STEP 2: POP UP WILL PROMPT USER TO OPEN BLEEDER VALVE ON FILL LINE ASM

STEP 3: VALVE 1 WILL OPEN AND THE ELECTRIC FUEL PUMP WILL RUN FOR SET TIME (IN SETUP SCREENS) MINIMUM 5 SEC, MAX 60 SEC, INTERVALS OF 5 SEC. FACTORY SET AT 10 SEC

STEP 4: SYSTEM WILL HOLD FOR 2 MINUTES (SET TIME) TO ALLOW CLEANING AGENT TO REST ON PUMP GEARS

■ VALVE = OPEN
■ VALVE = CLOSE

AUTO CLEAN RETURN



SYSTEM NOTES:

STEP 5: VALVE 1 WILL CLOSE AND VALVE 3 WILL OPEN

STEP 6: ASPHALT PUMP WILL BEGIN TO SPIN AT 25GPM FOR 15 SECONDS THEN 50GPM FOR 30 SECONDS, THEN 125 GPM FOR 1 MIN AND 15 SECONDS, VALVE 3 WILL CLOSE UPON COMPLETION OF TIME

STEP 7: POP UP WINDOW WILL PROMT USER TO CLOSE BLEEDER VALVE. BUTTON TO SAY PRESS WHEN COMPLETE

STEP 8: AUTO CLEAN CYCLE COMPLETE

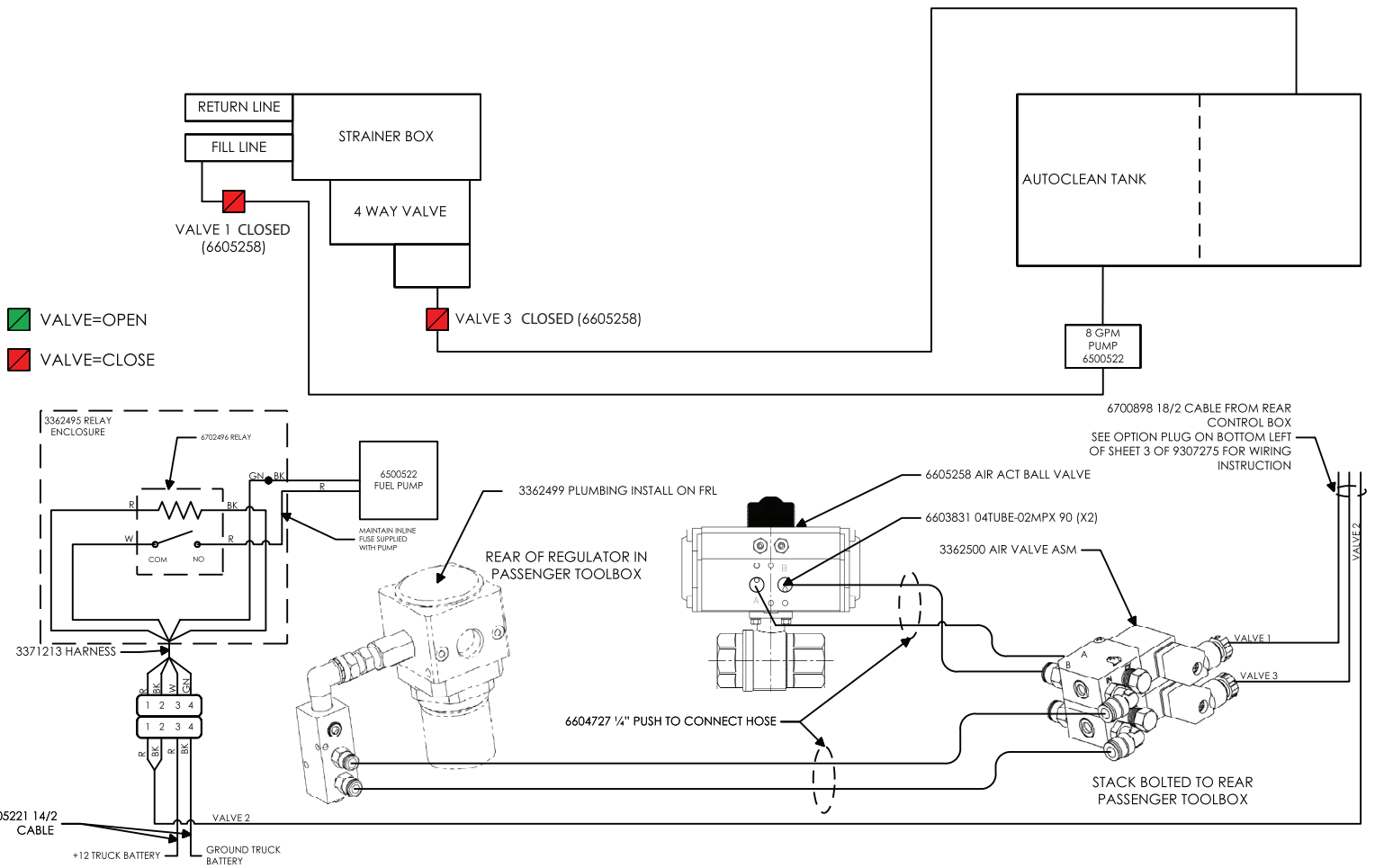
■ VALVE = OPEN
■ VALVE = CLOSE

FLOW DIAGRAM - AUTO CLEAN

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VALVE LOCATIONS & WIRING



AUTO CLEAN OPERATIONS

Optional Auto Clean System

The auto clean system is an automatic closed system which pulls flushing solvent from the clean side of the split Auto Clean tank, pumps it into the strainer box, and returns the solvent to the dirty side of the Auto Clean tank.

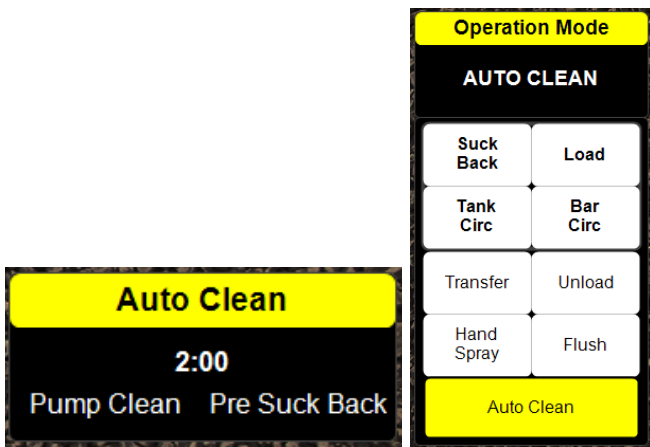
The pump on the Auto Clean is an 8 GPM pump. In order to establish how much fluid is pumped per cycle, multiply chosen Auto Clean Load time by 0.133. Stock setting is 15 seconds, therefore $15 \text{ sec} \times 0.133 = 2 \text{ gallons per cycle}$. Refer to *Adjusting the Auto Clean Presets* for changing auto clean settings.

Recirculating Auto Clean Operation

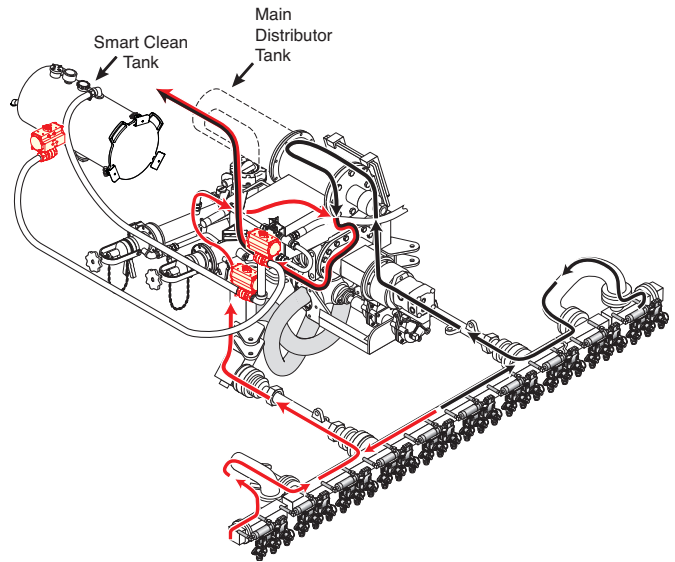
Complete the **standard suck back procedure(s)** on pages 4 and 5 (also found in M-103-22 series Black-Topper Operation manuals) **before** starting the Auto Clean operation.

Normally the standard suck back procedure will remove sufficient material from the circulating system to negate the need for performing the Auto Clean procedure.

Flushing solvent must be in the Auto Clean tank for the Auto Clean procedure.



AUTO CLEAN SYSTEM OPERATION CONTROLS



STANDARD SUCK BACK FLOW



CAB CONTROL PANEL



REAR CONTROL PANEL

Spray Bar Suck Back

Refer to **Figure 1** for the following procedures.

1. Park the Distributor and set the parking brake.
The Engine must be running and the optional transmission PTO must be engaged.
2. Turn the MASTER SPRAY switch OFF.
3. Turn the cab POWER switch ON and turn the rear EMERGENCY STOP ON.
4. At the rear of the distributor, set or confirm the following:
 - Return valve **open**
 - Tank Valve **closed**
 - Master hand spray valve **closed**
 - Transfer line suck back valve **closed**
 - Transfer line valve **closed**
 - Flush valve **closed**
 - Load and transfer line caps are in place and secured
5. Increase truck RPM over 1000 RPM
6. Go to suck back on the screen
7. Move pump to auto if not already there (200 GPM default)
8. Tap start pump button
9. Raise spray bar and fold wings
10. Let pump suck back for a sufficient period of time to allow all the product to be pulled from the spray bar and circulating system as defined by the pump (noise/load). Do not open any spray valve or air into the system at this time.
11. When confident that the product pump is not pulling any material from the circulating system, turn on the wash down pump (if equipped) or open the flush valve on the side of the load line to introduce release agent into the system.
NOTE: Without a wash down pump it will be a calculated guess as to how much release agent is going into the system due to the nature of the condition of the wash down system (this may take extra time). With the wash down pump running, open the flush valve for a period of time (20 to 30 seconds, depending on material in the circulating system) to allow release agent

to migrate into the strainer box and over to the asphalt pump.

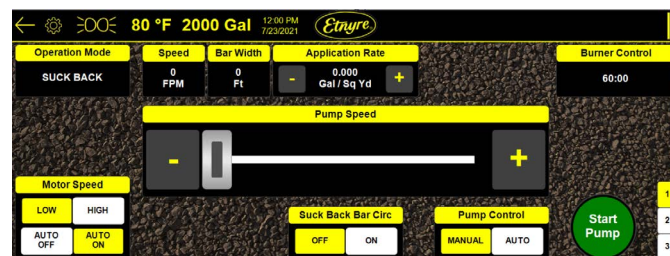
12. At this time while the wash down pump is running and suck back is in auto, change the pump control from auto to manual, and increase the pump speed slider about $\frac{3}{4}$ of the way and start the pump again.
Adjust the pump GPM to around 60 GPM for another 10 seconds then turn the pump dial counterclockwise to the 0 GPM position for approximately another 10 seconds.
13. Turn the flush valve to the off position, shut off the wash down pump then hit the power button to turn off the system.

NOTE: The pump can be stopped and the auto-matic tank valve can be closed immediately at any time during operation by turning the EMERGENCY STOP switch OFF.

For asphalts like AC it is recommended that this procedure be repeated a second time, after which adding solvent such as diesel fuel through each bleeder will quickly flush the spray bar.

If not equipped with an electric pump, it is helpful to pour some diesel fuel down the fill line after all operations are completed. The diesel fuel will remain in the pump overnight to keep the pump free for the next morning's operation.

Ensure that the self flush valve is closed at the end of this function, or before loading or circulating asphalt to eliminate chances of inducing asphalt into the self flush fuel tank.



Suck Back Operation Mode

WARNING

To prevent possible burns from hot asphalt spray, do not stand, or allow anyone to stand, where accidental opening of a valve may cause contact with hot asphalt.

CAUTION

When using rear pump control, engine RPM changes will affect asphalt pump speed.

Operation Mode	
SUCK BACK	
Suck Back	Load
Tank Circ	Bar Circ
Transfer	Unload
Hand Spray	Flush

Handspray Valve Positions

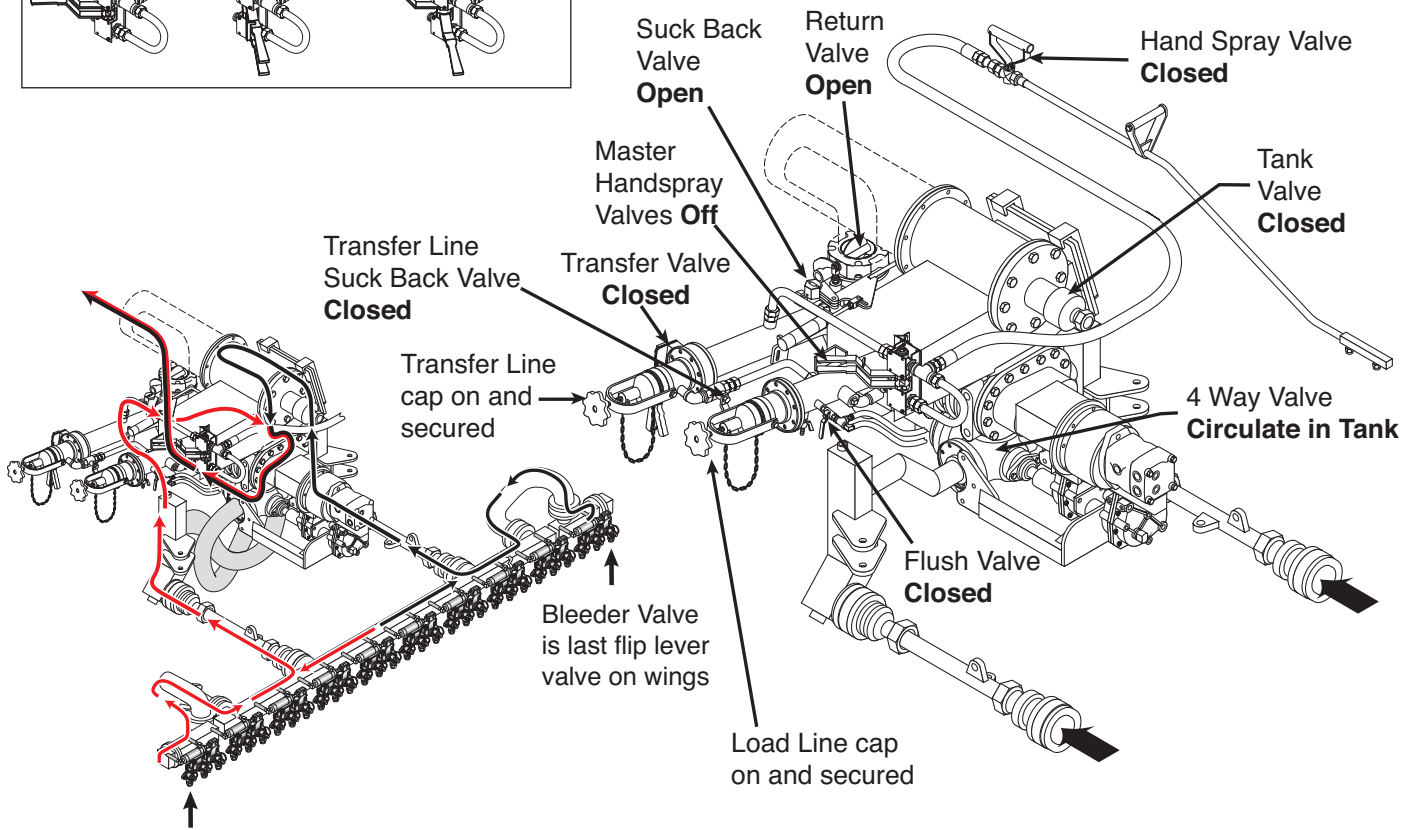
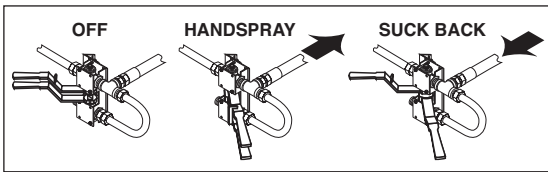


Figure 1. Valve Positions for Spray Bar Suck Back

Auto Clean Cycle

At the cab control panel:

Turn on the POWER switch.

At the rear control panel:

1. Turn on the EMERGENCY STOP switch.
2. **Confirm unit is properly sucked back.**
3. Press the Auto Clean button in the Operation Mode (see Figure 2 on page 7).
4. Put the PUMP CONTROL to AUTO.
5. Press START. The pump will start turning at a preset circulation rate (200 GPM). For two minutes the system will engage a standard suck back. (Figure 3 on page 7)
6. **Before continuing Auto Clean Load, the bleeder valve shown in Figure 5 on page 7 must be moved to the OPEN position. Follow the prompt on the screen.**

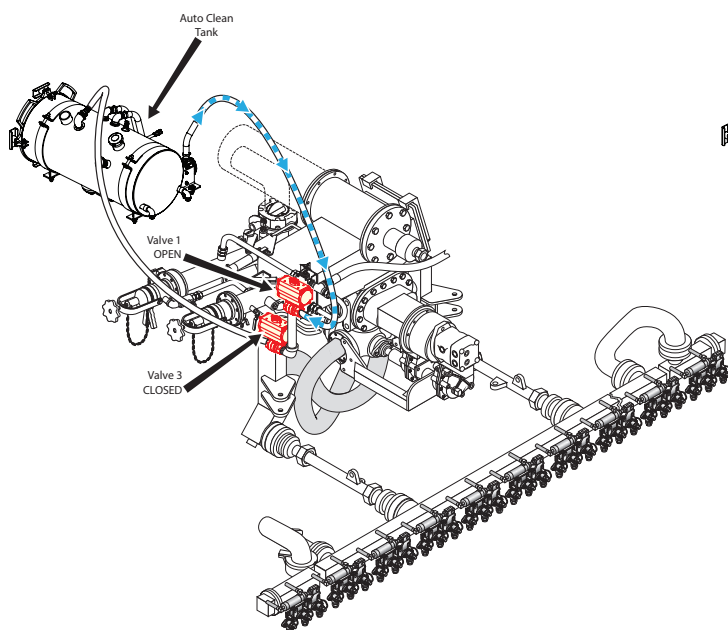
After standard suck back is complete, the Auto Clean valves will switch into Auto Clean Load. (Figure 4 on page 7) Press CONTINUE on the touchscreen once the bleeder valve is opened.

- a. The 8 GPM solvent pump will spin for the time adjustable in Setup by Auto Clean Load (factory set to 15 seconds), and pull solvent from the clean side of the Auto Clean Tank to the top of the strainer box.
7. After Auto Clean Load is completed, the

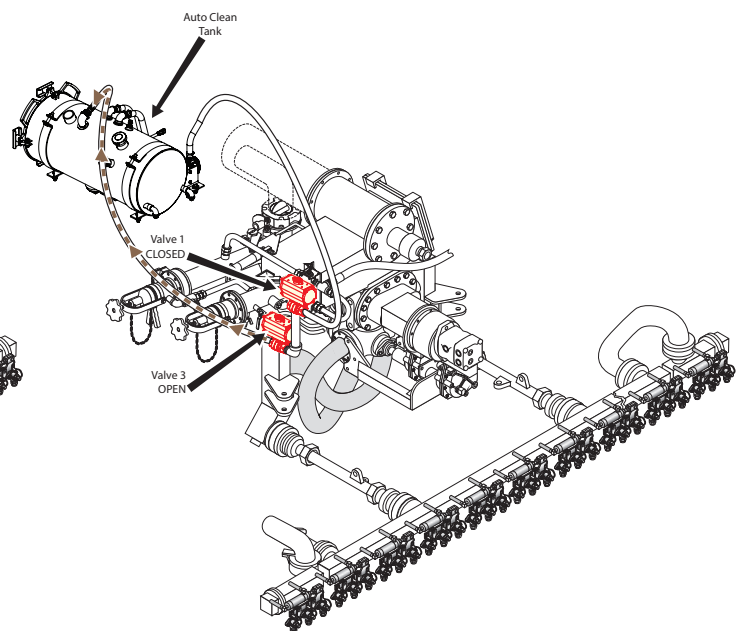
system will switch into Auto Clean Rest (Figure 6 on page 7). For two minutes (not adjustable), the solvent pump and asphalt pump will be shut off, allowing solvent to sit on the strainer filter box and pump gears, helping to loosen oil.

8. When Auto Clean Rest finishes, the asphalt pump will pump dirty solvent to the dirty side of the Auto Clean Tank in the Auto Clean Return step (Figure 7 on page 7). The asphalt pump will start at 25 GPM for 15 seconds, ramp up to 50 GPM for 30 seconds, and finish the rest of the cycle time at 125 GPM (total Return time is factory set at 120 seconds.)
9. At the end of Auto Clean Return, the bleeder valve shown in Figure 8, page 7 must be moved to the CLOSED position. Follow the prompt on the screen. Press CONTINUE on the touchscreen once the bleeder valve is closed.
10. Auto Clean is now complete.

NOTE: To stop the pump at any time in Auto or Manual control, press the red STOP PUMP button



AUTO CLEAN LOAD



AUTO CLEAN RETURN



Figure 2. Auto Clean Button

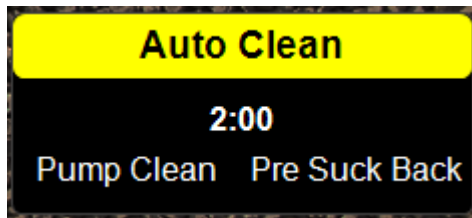


Figure 3. Pre Suck Back

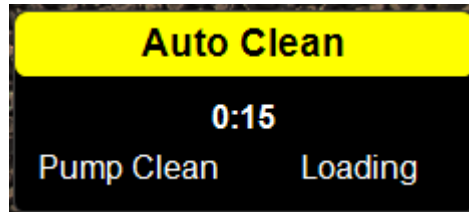


Figure 4. Auto Clean Load

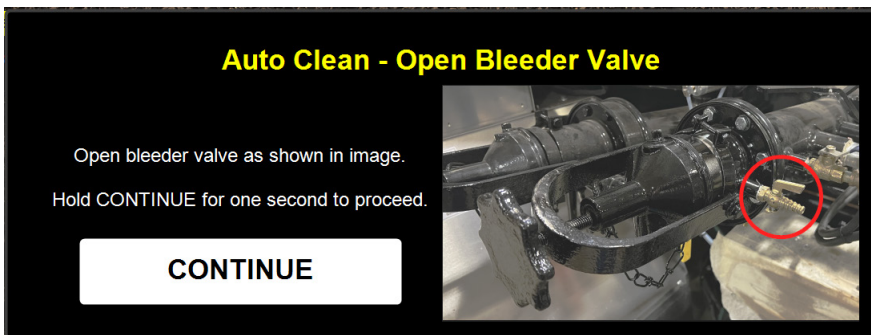


Figure 5. Open Bleeder Valve

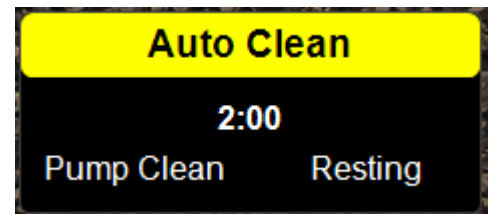


Figure 6. Auto Clean Rest

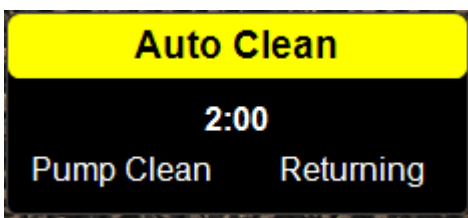


Figure 7. Auto Clean Return

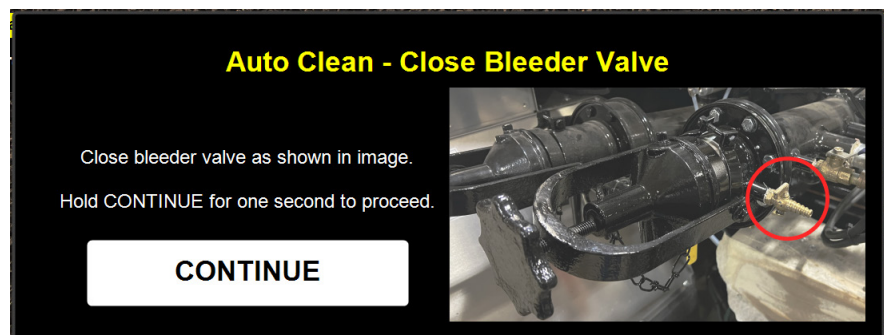
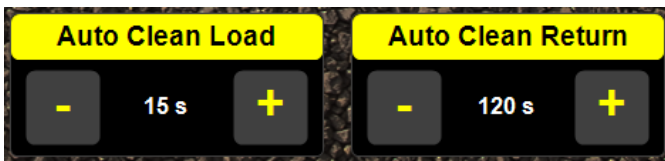


Figure 8. Close Bleeder Valve

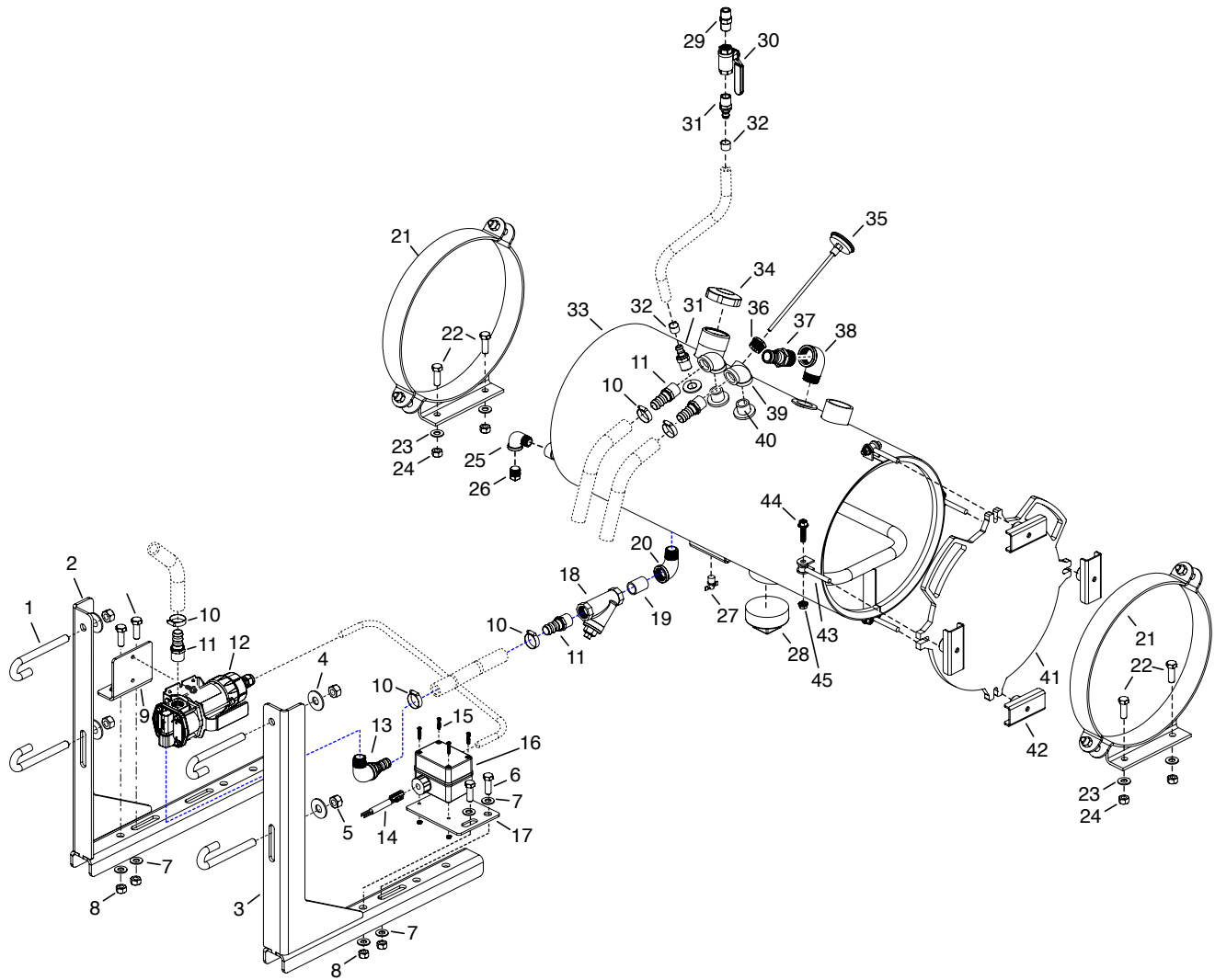
Adjusting the Auto Clean Presets

Enter the Setup Screens.

1. Navigate to Setup by pressing the gear icon in the header. Press the Setup button and enter the password 61061. Auto Clean settings are on page 1.
2. Use the plus and minus buttons to adjust settings.
 - a. Auto Clean Load is the time the 8 GPM solvent pump pulls solvent into the system. This defaults to 15 seconds and is adjustable by 5 seconds between 5 and 60 seconds.
 - b. Auto Clean Return is the time the asphalt pump returns solvent to the Auto Clean tank. This defaults to 120 seconds and is adjustable by 5 seconds between 60 and 240 seconds.
3. Tap the Etnyre Logo home button on the header to exit Setup and return to the home screen.



Auto Clean Recirculating Flushing System - Optional



REF	PART NO.	QTY	DESCRIPTION	REF	PART NO.	QTY	DESCRIPTION
1	3360726	4	BOLT-HOOK BIT,FRAME TRUCK 3/4	24	9411727	4	NUT-HEX, LOCK 0.500NC, PD
2	3383559	1	ANGLE ASM-LH BAR BOX MTG	25	0127961	2	ELBOW-PIPE,90,ST,0.50NPT,PD
3	3383555	1	ANGLE ASM-RH BAR BOX MTG	26	0219200	2	PLUG-PIPE,SQ HD,0.50NPT,PD
4	0130999	4	WASHER-FLAT,0.62A(0.69X1.75)PD	27	6600162	1	COCK-DRAIN,0.25",EXTERNAL SEAT
5	9413948	4	NUT-HEX,LOCK,0.62NC,EA,GRA,PD	28	6200153	1	PLUG-PIPE,SQ HD,3.00NPT,PN
6	0180177	8	CAPSCREW-GR 5, 0.500 UNC X 1.50	29	6601714	1	ADAPTER-HYDR,ST,08MP-08MP
7	0120396-CR	10	WASHER-FLAT, SAE STD, 0.500	30	6601414	1	VALVE-BALL,,50 IN., GEMINI
8	9411727	8	NUT-HEX, LOCK 0.500NC, PD	31	6600663	1	HOSE END-08X08MP,ST,LPSP
9	3384991	1	BRACKET-ANGLE,FUEL PUMP	32	6000087	2	CLAMP-HOSE,56-1.06
10	6000792	5	CLAMP-HOSE,WORM DR, 1"	33	3384990	1	AUTO CLEAN TANK ASM
11	6600647	2	HOSE END-12X12MP,ST,LPSP	34	6605204	1	CAP-FILL,VENTED W/CHAIN RETAIN
12	6500522	1	PUMP-FUEL,12V,8GPM	35	6500039	1	THERMOMETER-2IN.DIAL,9IN DUAL
13	0144113	1	ELBOW-PIPE,90,ST,0.75NPT,PD	36	0144033	1	BUSHING-PIPE,0.75X0.25NPT,PN
14	3371213	1	HRNS-JUMPER,RELAY ENCLOSURE	37	6601565	1	HOSE END-16-16MP,ST,LP100R4
15	0436699	4	SCREW-MACH,PNSL,8NCX1.00,PD	38	6201234	1	ELBOW-PIPE,90,ST,1.00NPT,PD
16	3362495	1	RELAY ASM-AUTO CLEAN, ENCLSD	39	0144129	2	ELBOW-PIPE,90,0.75NPT,SST
17	3384992	1	PLATE-MOUNT,RELAY ENCLOSURE	40	6200530	2	NIPPLE-PP,SCH 80,0.75CL,PD.
18	43935K24	1	LOW-PRESS. BRONZE Y-STRAINER	41	3384973	1	PLATE-LID,AUTO CLEAN
19	6200658	1	NIPPLE-PP,SCH 40,0.75CL,GALV	42	2600376	4	HANDLE-ASM
20	0144113	1	ELBOW-PIPE,90,ST,0.75NPT,PD	43	2600371	4	BOLT-EYE,20" MANHOLE
21	2610041	2	BRKT ASSEMBLY-MT, FUEL TANK	44	6100880-05	4	BOLT-WIZ,0.375UNCX1.50 GR5,PD
22	0180177	4	CAPSCREW-GR 5, 0.500 UNC X 1.50	45	6002390	4	NUT-HEX SER FLG,,38NC GR2PD
23	0120396-CR	4	WASHER-FLAT, SAE STD, 0.500				