

**INTERNATIONAL BULK SYRUP SYSTEM
MVE MODEL SPS-300L AND SPS-300L CB**

Place this chapter in the Beverage section of
the *Equipment Manual*.

Manufactured for

McDonald's®

By

MVE, Inc.

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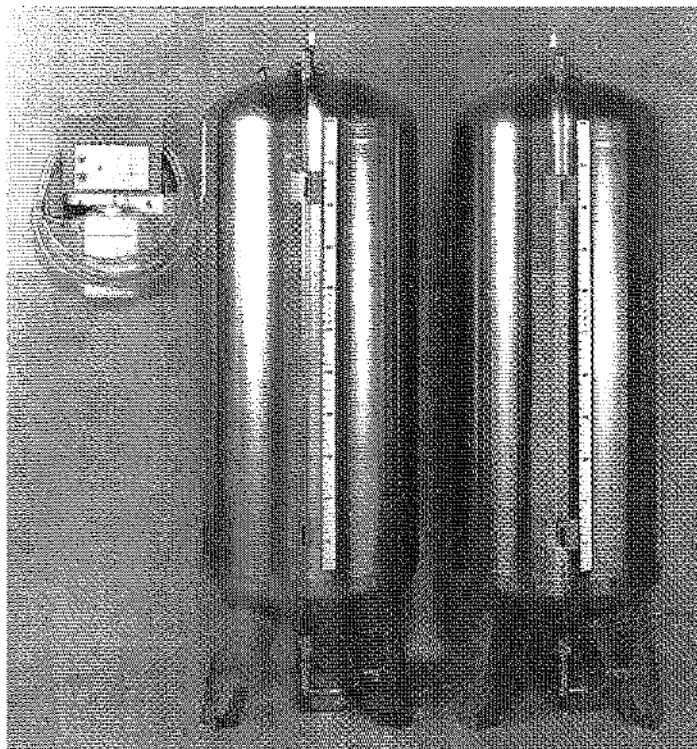


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WARRANTY

MINNESOTA VALLEY ENGINEERING (MVE) warrants to McDonald's Restaurants (the Purchaser) the international bulk syrup (InterBulk) equipment for one (1) year after purchase, that said equipment shall be free from any defects in workmanship and materials.

Purchaser agrees that as a pre-condition to any MVE liability hereunder, Purchaser or its appointed agents shall fully inspect all goods immediately upon delivery and shall give MVE written notice of any claim or purported defect within ten (10) days after discovery of such defect. As a further pre-condition to any MVE liability hereunder, both part replacement and labor must be supplied by an approved MVE service company. MVE may elect to repair or replace such equipment or any defective component or part thereof which proves to be defective, or to refund the purchase price paid by the original Purchaser. Alterations or repairs by others or operation of such equipment in a manner inconsistent with MVE accepted practices and all operating instructions, unless pre-authorized in writing by MVE, shall void this Warranty. MVE shall not be liable for defects caused by the effects of normal wear and tear, erosion, corrosion, fire, explosion, misuse, or unauthorized modification.

MVE's sole and exclusive liability under this Warranty is to the Purchaser and shall not exceed the lesser of the cost of repair, cost of replacement, or refund of the net purchase price paid by the original Purchaser. MVE is not liable for any losses, damages, or costs of delays, including incidental or consequential damages. MVE specifically makes no warranties or guarantees, expressed or implied, including the warranties of merchantability or fitness for a particular purpose or use, other than those warranties expressed herein.

WARRANTY CLAIMS PROCEDURE

1. All warranty claims must be previously authorized by:

MVE, Inc.

Telephone/electronic approval may be obtained by contacting Technical Services at:

Telephone: 952-882-5000

Fax: 952-882-5185

or by writing to the Technical Services Manager at:

MVE, Inc.

3505 County Road 42 West

Burnsville, MN 55306-3803

USA

2. Authorization must be obtained from MVE prior to shipment of any equipment to our facilities.

INTRODUCTION

The International Bulk Syrup System, InterBulk, is designed to provide sanitary storage and continuous supply of Coca-Cola® syrup in conjunction with a bag-in-a-box (BIB) pump and automatic selector valve (ASV) system. InterBulk consists of two or more stainless steel bulk syrup tanks. Each tank holds 300 liters of Coca-Cola® syrup and replaces the bag-in-a-box (BIB) boxes or other syrup packages. The InterBulk system also features an automated clean-in-place panel (CIP) for sanitizing the syrup tanks before refilling.

InterBulk works with the BIB pumps and the automatic selector valve (ASV). Syrup is withdrawn from one syrup tank at a time and fed to the beverage machine upon demand by the BIB pumps. When one tank empties, the system automatically switches to the next full tank. The supply of syrup is continuous and requires no changing of empty boxes or tanks.

Before refilling an empty syrup tank, it must be sanitized. The empty tank is connected to the clean-in-place panel (CIP), which automatically rinses and sanitizes the tank, preparing it for the next bulk syrup delivery.

InterBulk syrup deliveries are part of the store's regular delivery service. The sanitized InterBulk tank is connected by a syrup delivery hose to a 300 liter bulk delivery tank located on the delivery truck. The InterBulk tank is automatically refilled with 300 liters of Coca-Cola® syrup during each bulk syrup delivery.

There are two models of InterBulk tanks. The first is the permanently installed, nonmobile, model SPS-300L, which is the most commonly used model. The second model is the SPS-300L CB, which is a mobile tank mounted on a caster base with a handle bar. The portable SPS-300L CB operates exactly the same as the SPS-300L, except it can be moved within the store for filling, sanitizing, or syrup dispensing.

Hazard Communication Standard (HCS)

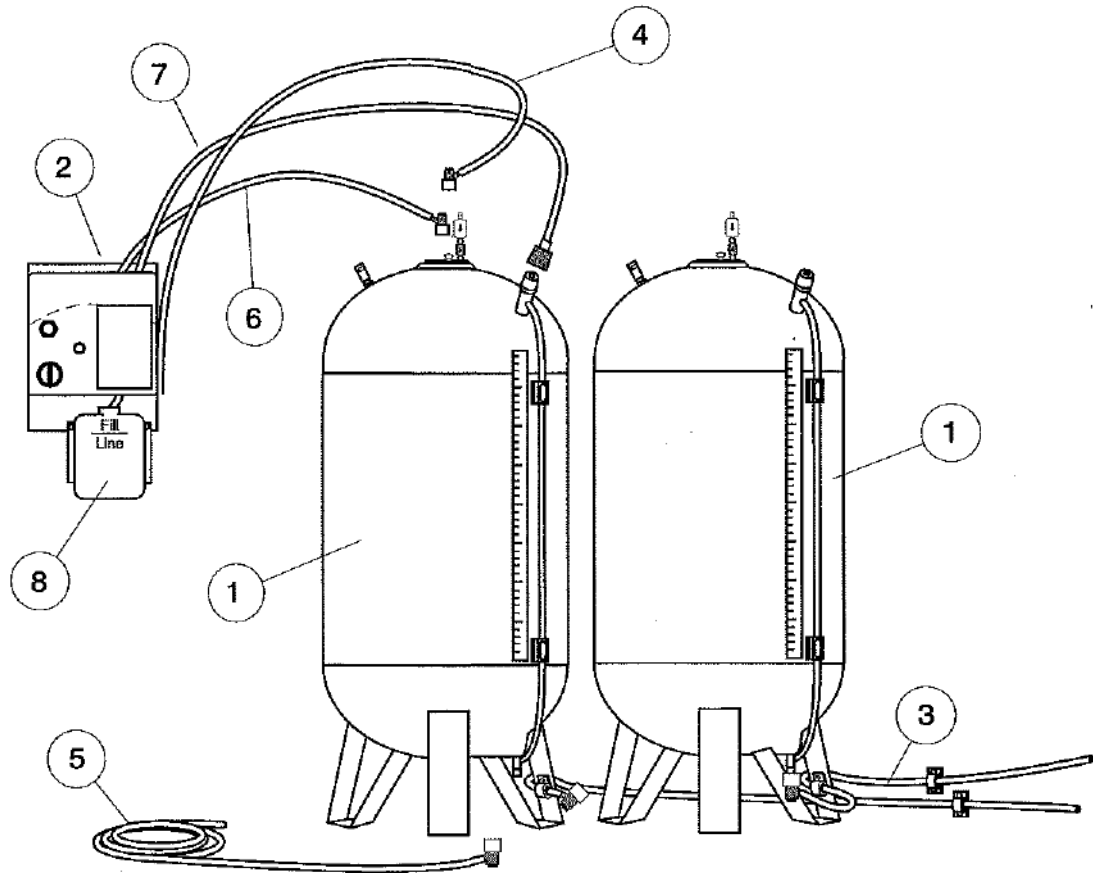
The procedures in this equipment manual include the use of chemical products. These chemical products will be highlighted with bold face letters followed by the abbreviation (HCS) in the text of the manual. See the Hazard Communication Standard (HCS) Manual for the appropriate Material Safety Data Sheet(s) (MSDS).

Disclaimer

This piece of equipment is made in America and has American sizes of hardware. All hardware metric conversions are approximate and can vary in size.

Coca-Cola® is the registered trademark of the Coca-Cola Company.

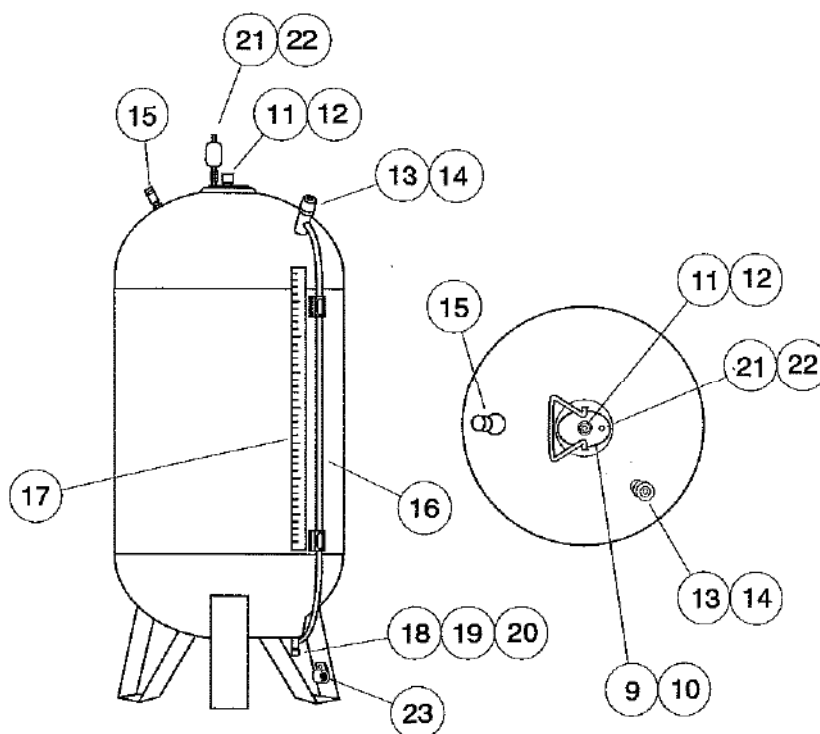
INTERNATIONAL BULK SYRUP SYSTEM



PARTS IDENTIFICATION AND FUNCTION

ITEM	PART NO.	DESCRIPTION	QTY	FUNCTION
1	99-2257-9 or 99-2332-9	SP-300L Bulk Syrup Tank or SPS-300L CB Portable Bulk	2 or more	Stores and dispenses 300 L (79.26 gal) of Coca-Cola® syrup.
2	97-2310-9	Clean-In-Place Panel (CIP)	1	Sanitizes the tank before refilling.
3	97-2316-9	Syrup Supply Hose	2	Connects tank to BIB system to supply syrup to beverage machine.
4	—	Tank Vent Line	1	Depressurizes tank during syrup filling.
5	—	Drain Line	1	Drains tank during sanitizing.
6	—	Sanitizer Line for Spray Head, 3/8" line	1	Rinses and sanitizes inside of tank.
7	—	Sanitizer Line for Fill Fitting, 1/4" line	1	Rinses and sanitizes fill fitting and liquid level gauge.
8	10526954	Sanitize Solution Container	1	Holds and dispenses sanitizer solution

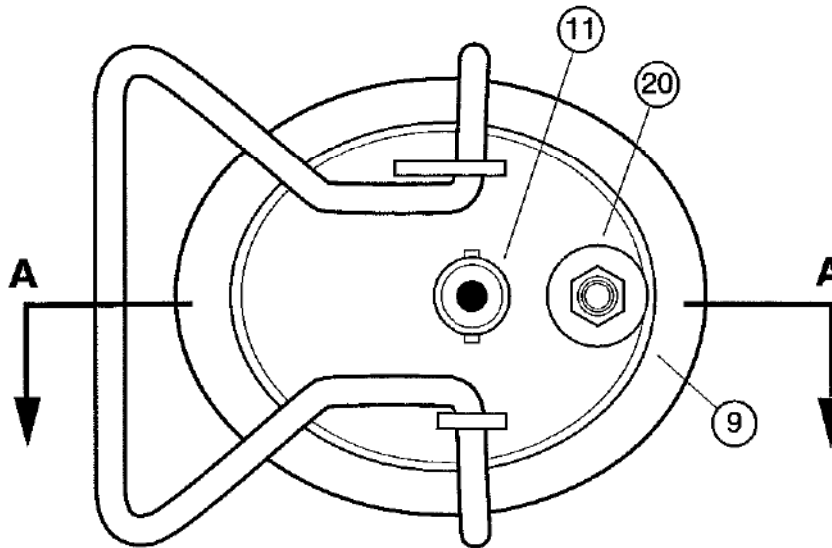
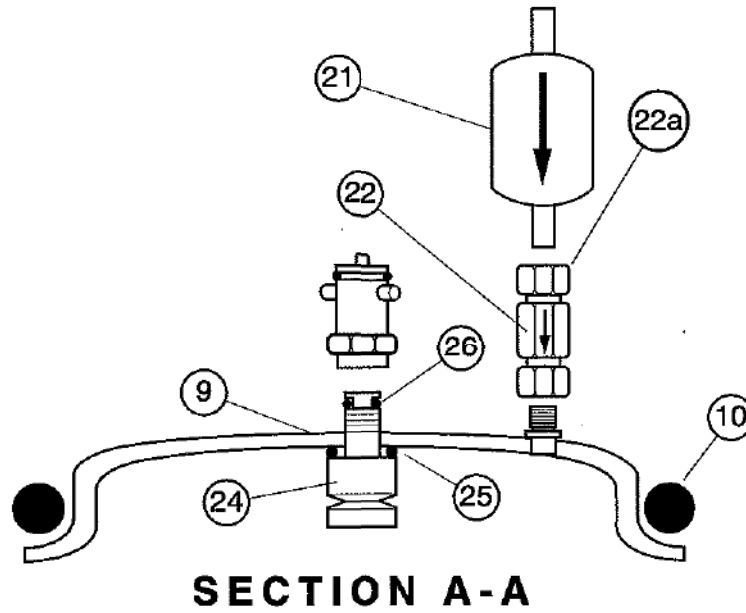
INTERNATIONAL BULK SYRUP TANK



PARTS IDENTIFICATION AND FUNCTION

ITEM	PART NO.	DESCRIPTION	QTY	FUNCTION
9	56-1858-9	Tank Closure	1	Allows for tank inspection.
10	23-0001-1	O-Ring (1/4" Thick)	1	Seals the closure to tank.
11	65-1163-1	Sanitize/Vent Fitting, 2-Pin	1	Connection for sanitizing and venting the tank.
12	39-1091-6	Dust Cap, 2-Pin Cover	1	Protects the sanitize/vent fitting.
13	65-1166-1	Syrup Fill/Sanitize Fitting, (3/4" Quick Conn. Nipple)	1	Connection for filling and sanitizing the syrup tank.
14	39-1090-6	Dust Cap	1	Protects the syrup fill/sanitize fitting.
15	18-1286-9	Relief Valve	1	Safety device set at 3.5 psi (0.24 bar).
16	28-1216-6	Liquid Level Gauge	1	Indicates syrup level and contents.
17	38-3537-9	Liquid Level Label	1	Indicates syrup contents in liters.
18	65-1227-1	Supply/Drain Fitting, (3/8" Quick Conn. Nipple S.S.)	1	Connection for supplying syrup or draining sanitizing solution.
19	12-1423-1	Shut-off Device 1 7/8 FPT x 7/8 MPT	1	Stops the flow of syrup when tank is empty.
20	39-1167-6	Dust Cap 3/8"	1	Protects the supply/drain fitting.
21	49-1051-6	Air Intake Filter (1/4" Hose)	1	Filters air inhaled during syrup use.
22	17-1924-1	Air Intake Check Valve	1	Protects air filter from syrup contamination.
23	34-1204-6	Hose Support Loop	1	Supports syrup hose and coupler.

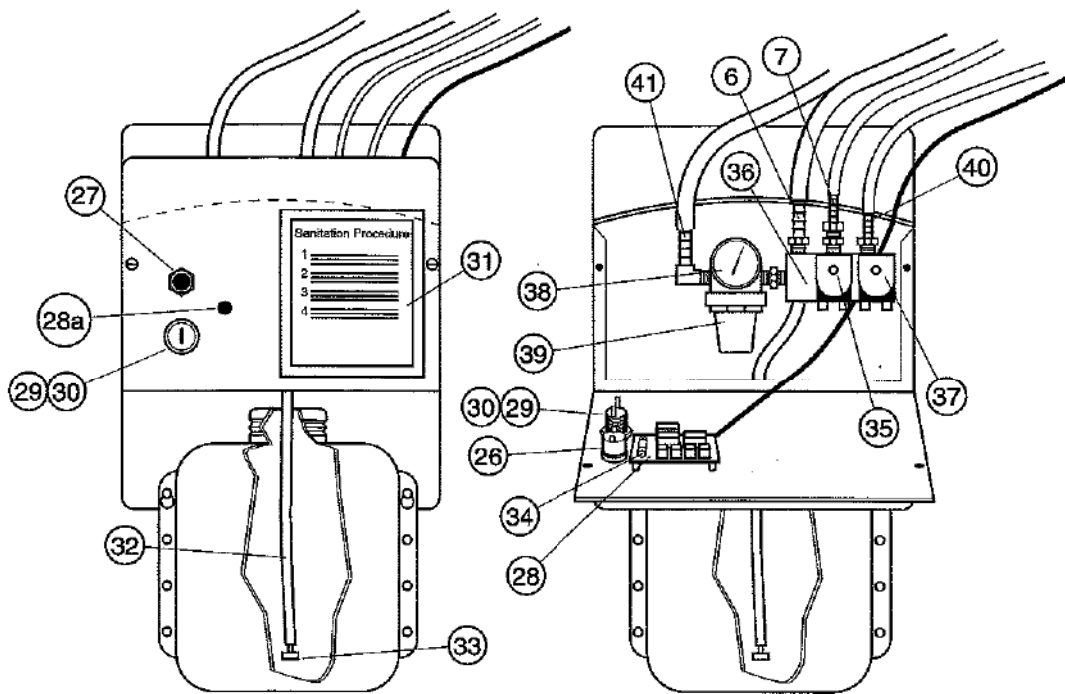
TANK CLOSURE ASSEMBLY



PARTS IDENTIFICATION AND FUNCTION

ITEM	PART NO.	DESCRIPTION	QTY	FUNCTION
22a		Compression Nut	1	Holds air intake filter firmly to check valve (part of check valve)
24	85-1352-1	Spray Head	1	Rinses and sanitizes inside of the tank
25	10526971	Gasket/O-Ring	1	Seals spray head to the closure.
26	47-1061-9	O-Ring	1	Seals spray head to 2 pin fitting at threads.

CLEAN-IN PLACE PANEL



PARTS IDENTIFICATION AND FUNCTION

ITEM	PART NO.	DESCRIPTION	QTY	FUNCTION
27	46-1422-R	Manual CO ₂ Purge Button	1	Purges remaining sanitizer from tank.
28	10526938	Electronic Circuit Board	1	Holds the electronics for the switches and timers.
28 a		Timer Light	1	Indicates CIP operation (part of electronic circuit board).
29	46-1390-R	Key Switch Assembly	1	Turns power ON and OFF.
30	46-1391-R	Key for CIP	1	Controls CIP sanitize operation.
31		Operation Decal	1	Step by step operating procedures
32	10526962	Sanitizer Inlet Tube	1	Adds sanitizer to the water supply.
33	10527025	Sanitizing Strainer	1	Eliminates particles from the system.
34	46-1506-9	5 Amp Fuse	1	Protects electronic circuit board.
35	10526920	Solenoid Valve	1	Valve for the water supply
36	10526911	Manifold Block	1	Routes the CO ₂ , water and sanitizer.
37	10526920	Solenoid Valve	1	Valve for the CO ₂ supply
38	10526903	Water Pressure Gauge (0-60 psi)	1	Indicates water pressure.
39	10526891	Water Regulator	1	Controls water pressure.
40	10526882	CO ₂ Inlet Barb, 1/4"	1	Brings CO ₂ gas into CIP.
41		Water Inlet Barb, 3/8"	1	Brings water into CIP (part of water regulator kit).

INTERBULK SYSTEM OPERATING MODES

Sanitation Mode

NOTE: Syrup tanks must be sanitized before every syrup delivery.

1. Prepare sanitizing solution by filling the Sanitize Solution Container to the "fill line" (approximately 0.85 U.S.gal or 3.2 l) with lukewarm potablewater and then adding one (1) packet of **McD Sink Pak Sanitizer (HCS)**. Close the container and shake it vigorously for one (1) minute until all sanitizer is thoroughly dissolved. Open the container and connect it to the Clean-In-Place Panel (CIP) making sure the Sanitizer Inlet Tube is in the container.
2. Disconnect the Syrup Supply Hose from the Supply/Drain Fitting on the bottom of the syrup tank. Replace the dust cap and plug, and store the hose in the Hose Support Loop located on the tank leg. (For stores with three or more syrup tanks, disconnect the syrup tank and connect it to the Supply/Drain Fitting on the next full syrup tank to be used.)
3. Connect the Drain Line to the Supply/Drain Fitting on the bottom of the syrup tank. Ensure the other end of the Drain Line is run to the floor drain and is secured in the drain stand pipe.

4. Connect the Sanitize Line with the female 2-pin connector to the Sanitize/Vent Fitting (male 2-pin connector) on the syrup tank.

5. Connect the Sanitize Line with the 3/4 inch quick connect coupling to the SyrupFill/Sanitize Fitting (3/4 inch male coupling) on the syrup tank.

6. On the Clean-In-Place Panel(CIP) start the sanitizing cycle by turning the Key Switch **CLOCKWISE** to turn the power **ON**. (Red Timer Light should begin to flash/blink indicating the sanitation mode is in progress.)

NOTE: If the sanitation mode is interrupted by turning **OFF** the key or by loss of electrical power, the sanitizing procedure must be restarted beginning with step 1.

7. When the sanitation mode is complete (Red Timer Light is **OFF**), verify that the syrup tank is empty by briefly pressing the Manual **CO₂** Purge Button. Check the discharge end of the Drain Line for additional drainage.

WARNING: Limit use of CO₂ purge. Carbon dioxide displaces oxygen and does not support life.

Sanitation Mode

SEQUENCE	CYCLE	TIME
1	Rinse	4 Minutes
2	CO ₂ Purge	3/4 Minutes
3	Drain	6 1/2 Minutes
4	Sanitize	4 Minutes
5	CO ₂ Purge	3/4 Minutes
6	Drain	6 1/2 Minutes
Total		22 1/2 Minutes

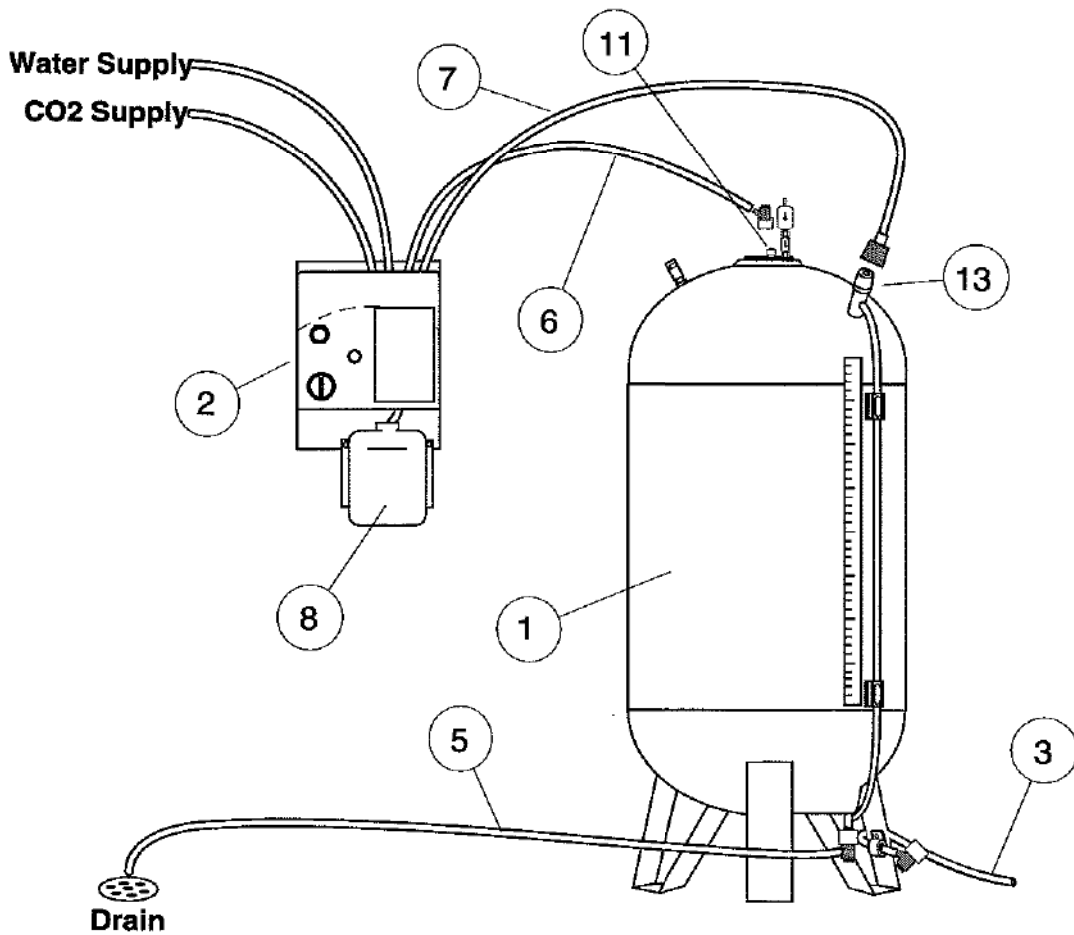
INTERBULK SYSTEM OPERATING MODES

Sanitation Mode (continued)

8. Turn the power OFF, remove the key, and disconnect the two Sanitizing Lines and the Drain Line from the syrup tank.
9. Wipe off all three tank fittings, the sanitize and drain line connections and the dust caps with a clean sanitized towel. Replace the dust caps on the tank fittings and line connections.
10. Store the Syrup Supply Hose and Coupler under the syrup tank in the hose support loop. (For stores having three or more syrup tanks, the Syrup Supply Hose and Coupler should already be connected to the next full syrup tank to be used.)

NOTE: The Syrup Supply Hose will be reconnected to the tank after the tank has been refilled.

11. Remove the Sanitize Solution Container from the Clean-In-Place Panel. Drain any remaining solution and replace container.
12. Raise the handle of the Relief Valve to the OPEN or UP position. Repeat this several times. When finished, return the handle to the CLOSED or DOWN position.



SYRUP DELIVERY MODE

NOTE: Sanitizer solution must be drained from the syrup tank before filling it with syrup.

NOTE: Syrup must only be delivered into an empty, sanitized syrup tank.

1. Verify that the Syrup Supply Hose and Drain Line are disconnected from the bottom fitting on the syrup tank.

NOTE: The Drain Line and Syrup Supply Hose must be disconnected from syrup tank during delivery of syrup.

2. Connect the Tank Vent Line to the 2-pin Sanitizer/Vent Fitting on the syrup tank.

NOTE: A full delivery of syrup (300 liters/79.3 U.S. gallons) can only be accomplished if the Tank Vent Line is connected to the tank.

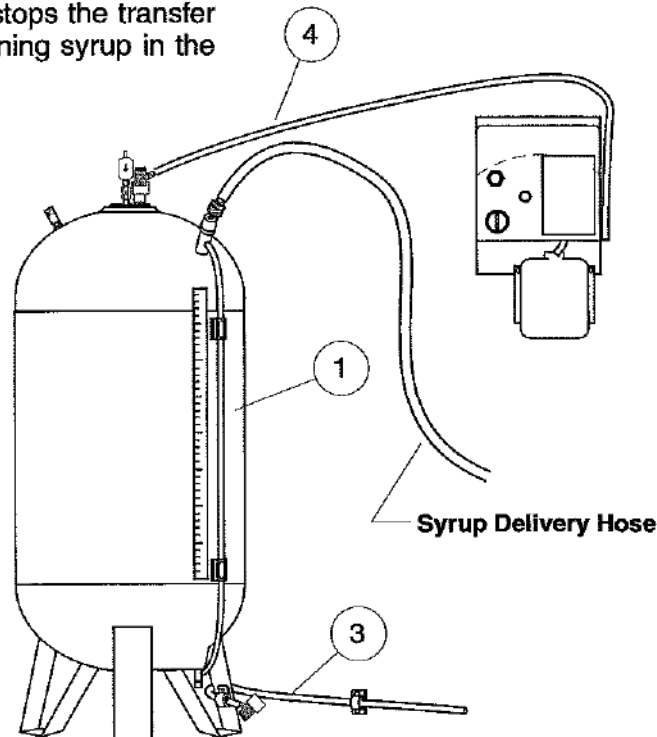
3. Remove the dust cap from the Syrup Fill/Sanitize Fitting and wipe the fitting with a clean sanitized towel.
4. Connect the delivery driver's Syrup Delivery Hose to the Syrup Fill/Sanitize Fitting. Check to ensure the connection is complete and then notify the driver. (At this time the delivery driver will begin the transfer of syrup).

5. After the delivery driver stops the transfer of syrup, walk any remaining syrup in the

Syrup Delivery Hose from the Syrup Delivery Tank into the store's bulk syrup tank. (The Syrup Delivery Hose should still be connected to both the delivery tank and store syrup tank during this process.)

6. Disconnect the Syrup Delivery Hose from the Syrup Fill/Sanitize Fitting. Return the Delivery Hose to the delivery driver.
7. Wipe off the Syrup Fill/Sanitize Fitting using a clean sanitized towel and replace the dust cap.
8. Disconnect the Tank Vent Line.
9. Remove the dust caps from the Syrup Supply Hose Coupler and the Supply/Drain Fitting and wipe them with a clean sanitized towel.
10. Connect the Syrup Supply Hose to the Supply/Drain Fitting on the tank. (For stores with three or more syrup tanks, the Syrup Supply Hose should already be connected to the next full syrup tank to be used.)

NOTE: The Syrup Supply Hoses should be connected to the syrup tank only after the tank is refilled.



SYRUP USE MODE

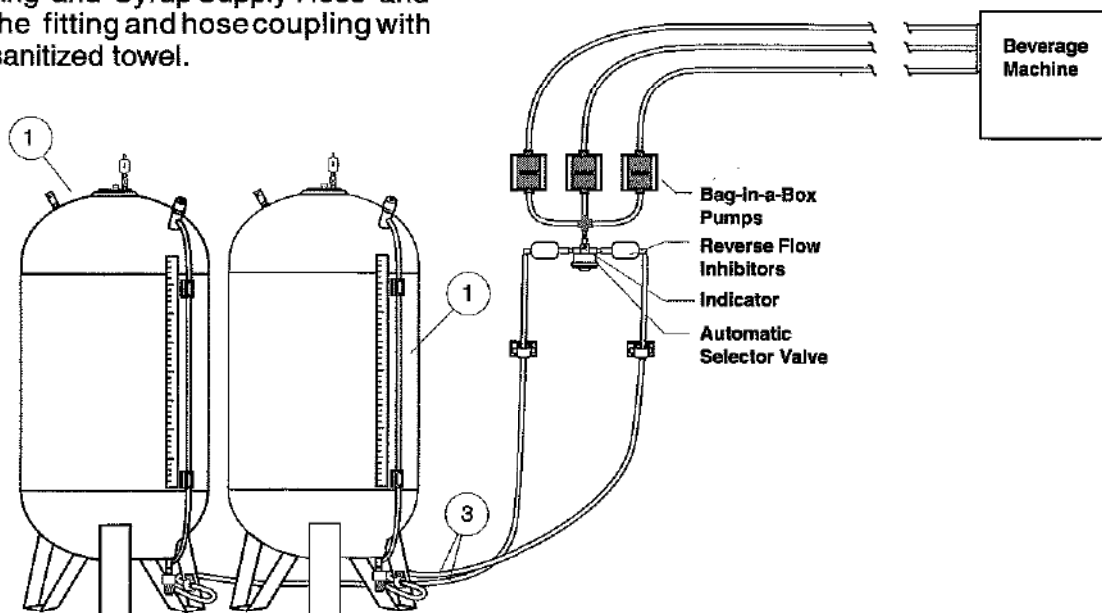
NOTE: Following a syrup delivery, the bulk syrup tank should already be properly connected for syrup use.

If a syrup tank is not already connected for the syrup use mode, then:

1. Remove the dust caps from the Supply/Drain Fitting and Syrup Supply Hose and wipe off the fitting and hose coupling with a clean, sanitized towel.

2. Connect the Syrup Supply Hose Coupling to the Supply/Drain Fitting on the tank.
3. Disconnect the Tank Vent Line.

NOTE: The syrup tank must be full of syrup prior to connecting the Syrup Supply Hose to the tank.



NOTE: Operation of the Bag-In-Box System:

- A. Syrup is pumped from one tank at a time by the BIB pumps.
- B. When the first tank empties, its shut-off device closes and a vacuum develops in the Syrup Supply Hose causing the Automatic Selector Valve (ASV) to switch to the next full tank.
- C. After the first tank is sanitized and refilled with syrup, the ASV will switch back to the first tank when the second tank empties.
- D. The small arrow indicator on the automatic Selector Valve (ASV) points to the Syrup Supply Hose currently in use.

SET-UP AND CLOSE PROCEDURES

Set-Up

1. Check the level of syrup in the bulk syrup tank (s) to be sure there is enough syrup to satisfy the store's needs for the day or until the next syrup delivery. Order a bulk syrup delivery if one is needed.

2. Check for any loose lines or syrup leaks.

Close

1. None.

TROUBLESHOOTING GUIDE

SYRUP TANK

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
No syrup to the beverage system.	Syrup tanks empty.	Order syrup and refill tanks.
		Switch to an emergency syrup supply.
	Syrup supply hose(s) not connected to full or partially full tank(s).	Firmly connect syrup supply hose coupler(s) to supply/drain fitting on partial or full tanks.
	No CO ₂ to BIB pumps.	Open CO ₂ isolation/shutoff valve to pumps.
		Change CO ₂ cylinder or switch to back-up CO ₂ cylinder.
		Call service agent.
	Syrup supply hose bent or compressed.	Straighten hose or remove obstruction.
	Automatic selector valve (ASV) will not switch to the next full syrup tank.	NOTE: Never attempt to switch the automatic selector valve (ASV) by pushing or applying pressure to the indicator arrow.
		NOTE: ASV will not switch until BIB pump(s) start pumping.
		Reset ASV by releasing excess vacuum in the syrup supply hoses by removing each hose and briefly depressing the poppet in the inside center of the coupler with a flat dull object, eg. finger tip. Be careful not to damage the o-ring on the poppet inside the coupler.
Call service agent.		

TROUBLESHOOTING GUIDE

SYRUP TANK

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
<p>No syrup to the beverage system (continued).</p>	<p>Tank shut-off device held closed by vacuum (Symptom: ASV indicator arrow points to full tank, hose is connected, but no syrup comes from syrup tank.)</p>	<ol style="list-style-type: none"> 1. Disconnect the syrup supply hose from the full tank. 2. Hold the open end (end without coupler) of the drain line above the top of the tank. 3. Connect the drain line coupler for 2-3 seconds to the tank's supply/ drain fitting. 4. Carefully disconnect the drain line and drain any syrup which has entered the line. 5. Reconnect the syrup supply hose to the tank. <p>NOTE: This problem can be avoided by connecting the syrup supply hose to the tank only after the syrup tank has been refilled. See following sections of the manual: "Sanitation Mode; Syrup Delivery Mode and Syrup Use Mode".</p>
		<p>NOTE: Ensure tank is sanitized before filling.</p>
		<p>Call service agent.</p>
<p>Vacuum in syrup tank. (Symptom: ASV indicator arrow points to partially full tank, syrup supply hose is connected, but no syrup comes from syrup tank.)</p>	<p>Vacuum in syrup tank. (Symptom: ASV indicator arrow points to partially full tank, syrup supply hose is connected, but no syrup comes from syrup tank.)</p>	<ol style="list-style-type: none"> 1. Lift the handle on relief valve until pressure equalizes. 2. Remove air intake filter/ check valve assembly. 3. Inspect filter and replace if dirty or congested. 4. Shake check valve while listening for a rattling sound, if no sound is heard, rinse check valve in clean warm water until shaking produces a rattling sound and then shake check valve dry. 5. Reassemble air intake filter and check valve and reattach to tank.

TROUBLESHOOTING GUIDE

SYRUP TANK

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
No syrup to the beverage system (continued).	Bag-in-a-box (BIB) pumps inoperative.	Follow troubleshooting procedures supplied by manufacturer.
		Call service agent.
	Beverage system inoperative.	Follow troubleshooting procedures supplied by manufacturer.
		Call service agent.
BIB pumps are pumping air, but little or no syrup.	Shut-Off Device in empty tank did not close or seal when tank went empty. (Symptom: ASV indicator arrow pointing to empty tank, syrup supply hose is full of air, and BIB pumps may be pumping rapidly.)	1. Disconnect syrup supply hose from empty tank (ASV should switch to full tank when pumps are activated).
		2. Call service agent to inspect shut-off device on tank.
		Call service agent.
	Air leak or break in the syrup supply hose, ASV, BIB pumps, or their couplers or connections.	1. If disconnecting hose fails to cause ASV to switch, then crimp the syrup supply hose to force ASV switch over.
		2. Call service agent.
		Call service agent.
	Air leak or break in the syrup supply hose, ASV, BIB pumps, or their couplers or connections.	1. Inspect system from tanks to BIB pumps for leaks or breaks.
		2. Repair if possible.
		1. Switch to another tank of syrup by disconnecting or, if needed, crimping the syrup supply hose on currently dispensing tank.
		2. Call service agent.
		Call service agent.

TROUBLESHOOTING GUIDE

SYRUP TANK

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION	
Syrup leaking from tank's supply/drain fitting.	Poppet in fitting is stuck partially open.	Connect and disconnect syrup supply hose coupler to clear the poppet. If the leak is substantial and cannot be stopped, connect a syrup supply hose and call service agent.	
	Poppet is stuck open by foreign object.	Attempt to remove the object by depressing the poppet with finger and gently pulling out the object. If leak is substantial and cannot be stopped, connect a syrup supply hose and call service agent.	
	Supply/drain fitting and/or shut-off device are loose.	Tighten fitting and shut-off device (Excessive force is not needed as seals are made with o-rings.)	
		Call service agent.	
	Syrup tank fills slowly or will not fill.	Vent line not properly connected to tank.	Firmly connect female 2-pin tank vent line connector to sanitize/vent fitting on syrup tank.
		Syrup delivery hose not properly connected to syrup tank.	Firmly connect delivery hose coupler to syrup fill/sanitize fitting on syrup tank.
Syrup delivery hose bent or compressed.		Straighten hose or remove the obstruction.	
Syrup delivery system or delivery hose are not properly connected or are inoperative.		Notify delivery driver.	

TROUBLESHOOTING GUIDE

SYRUP TANK

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Syrup and/or sanitizer coming from vent line during syrup tank fill.	Tank being filled still contains syrup (more than 15 liters).	<ol style="list-style-type: none"> 1. Immediately disconnect syrup delivery hose from tank. 2. Deliver remaining syrup into another sanitized empty tank, if available. 3. Notify distribution center so syrup can be tested if there is any concern about contamination of the syrup by sanitizer solution or water.
	Tank being filled still contains sanitizer solution.	<ol style="list-style-type: none"> 1. Immediately disconnect syrup delivery hose from tank. 2. Deliver remaining syrup into another sanitized empty tank, if available. 3. Notify distribution center so syrup can be tested for contamination.
Syrup supply hose or drain line coupler(s) will not work properly.	Collar of coupler is clogged with syrup.	Soak coupler in clean warm water until collar moves freely.
	Coupler or tank fitting is damaged.	Call service agent.
Automatic selector valve (ASV) switches before the syrup tank is empty.	Irregular vacuum surge due to flow or obstruction.	<ol style="list-style-type: none"> 1. Disconnect syrup supply hose from tank currently supplying syrup. 2. Draw one or more drinks from dispensing valve at tower so ASV will switch. 3. Reconnect syrup supply hose to tank.
	Faulty automatic selector valve (ASV).	Follow troubleshooting procedures supplied by manufacturer.
		Call service agent.
	Excess pressure drop (vacuum) in the BIB system.	Call service agent.

TROUBLESHOOTING GUIDE

CLEAN-IN-PLACE PANEL

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Timer light and solenoids on CIP fail to operate.	24 volt transformer is not properly connected.	Ensure transformer is plugged in and that no wires have been broken or disconnected. Call service agent.
	Electrical fuse or circuit breaker in store's electrical system has failed.	1. Replace fuse or reset circuit breaker. 2. Repeat sanitation mode.
	CIP inoperative.	Call service agent.
More than 1 liter of sanitizer left in container after sanitation mode is complete.	Sanitize solution container was over-filled at the beginning of the sanitize cycle.	No action required. (In the future fill sanitize solution container only to "fill line" with sanitizer solution.)
	Strainer on sanitizer inlet tube is plugged.	Remove container and clean strainer with warm water and soft brush.
		Replace strainer
		Ensure McD Sink Pak Sanitizer (HCS) is thoroughly dissolved before starting sanitation cycle.
	Repeat sanitation mode.	
	Sanitizing Inlet tube was either bent, damaged, obstructed, or not placed in sanitize solution container.	1. -Inspect inlet tube for damage or obstructions. 2. If tube is functional, repeat sanitation mode, making sure inlet tube is in the container.
Call service agent.		
Power to CIP was interrupted.	See troubleshooting section above on Timer Light and repeat sanitation mode.	
One or both sanitize lines not properly connected to tank.	1. Remove sanitize lines from tank fittings, inspect, and firmly reconnect. 2. Check both connections by giving a light pull on couplers. 3. Repeat sanitation mode.	

TROUBLESHOOTING GUIDE

CLEAN-IN-PLACE PANEL

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
More than 1 liter of sanitizer left in container after sanitation mode is complete (continued).	Sanitize line(s) bent or obstructed.	<ol style="list-style-type: none"> 1. Check lines. 2. Eliminate any obstructions, bends, or crimping. 3. Repeat sanitation mode.
	Spray Head inside tank damaged or plugged.	Call service agent.
	Timing for rinse/sanitize cycles is too short.	<ol style="list-style-type: none"> 1. Repeat steps 1 to 5 of sanitation mode instructions. 2. Turn key switch ON and start timing rinse cycle. 3. Stop timing when CO₂ purge begins. 4. If time is less than 3 minutes. 45 seconds, call service agent to adjust CIP timer.
	Insufficient water flow or pressure to CIP.	Open water isolation/shut-off valve from beverage system.
		<ol style="list-style-type: none"> 1. Inspect water pressure gauge inside CIP. 2. Insure at least 40 psi (2.8 bars) of water pressure is coming from beverage machine when water is not flowing and at least 35 psi (2.5 bars) when the water is flowing into CIP during rinse and sanitize cycles.
		Call service agent.
CIP inoperative.	Call service agent.	
Sanitize solution container empties before end of sanitation mode.	Container was not filled to the "fill line".	Repeat sanitation mode making sure to properly fill the sanitize solution container.

TROUBLESHOOTING GUIDE

CLEAN-IN-PLACE PANEL

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Sanitize solution container empties before end of sanitation cycle (continued).	Timing for rinse/sanitize cycles is too long.	<ol style="list-style-type: none"> 1. Repeat steps 1 to 5 of sanitation instructions. 2. Turn key switch ON and start timing the rinse cycle. 3. Stop timing when CO₂ purge begins. 4. If time is more than 4 min. 15 seconds, call service agent to adjust the CIP timer.
	Syphon rate of sanitize solution into CIP is too high.	Call service agent.
	Water flow or inlet pressure is too high.	If water pressure gauge inside the CIP reads above 40 psi (275 kPa) during rinse/sanitize cycles (when water is flowing), call service agent to adjust water regulator.
		Call service agent.
Sanitize solution not draining or purging from syrup tank.	Drain line not connected to tank during sanitation mode.	<ol style="list-style-type: none"> 1. Connect drain line to supply/drain fitting on tank. 2. Push manual purge button several times until tank purges dry. 3. Repeat sanitation mode instructions starting with step 7.
		NOTE: Do not disconnect drain line from tank until tank is thoroughly drained.
	No CO ₂ for purging.	Open CO ₂ isolation/shut-off valve.
		Change CO ₂ cylinder or switch to back-up CO ₂ cylinder.
		Call service agent.
	Drain line obstructed.	Clear obstruction.
Relief valve on tank open.	Move relief valve handle to the DOWN or CLOSED position.	

TROUBLESHOOTING GUIDE

CLEAN-IN-PLACE PANEL

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Sanitize solution not draining or purging from syrup tank (continued).	Air intake check valve is not closing during CO ₂ purge.	<ol style="list-style-type: none"> 1. Remove air intake filter/ check valve assembly from tank. 2. Inspect filter and replace if dirty or damaged. 3. Shake check valve and listen for a rattling sound. 4. If no rattling is heard, rinse valve (only) in warm water until shaking produces rattling. 5. Shake valve until dry. 6. Reassemble filter and check valve and reattach to tank.
	Tank closure OPEN.	CLOSE tank closure.
		Replace tank closure o-ring if missing.
	CIP inoperative.	Call service agent.

ORDERING PARTS/SERVICE

Installation Information

Date System Installed: _____

Installation Company: _____

Serial Numbers of InterBulk Tanks (Data Plate located on tank leg): _____

Local Service Companies

Primary

Alternate

Company Name: _____

Contact Person: _____

Address: _____

Telephone Numbers: _____

Facsimile Number: _____

How To Order Parts

For parts and service contact your local beverage equipment service company or the service department of the local Coca-Cola® bottler, or one of Coca-Cola's® or Minnesota Valley Engineering's local authorized service agents. To ensure prompt processing of your order, list each item separately, taking care to specify the quantity, the MVE part number, and the description of each item ordered.

To contact MVE, Inc. directly for technical support or information about parts, service, equipment operations, or equipment or parts ordering, contact:

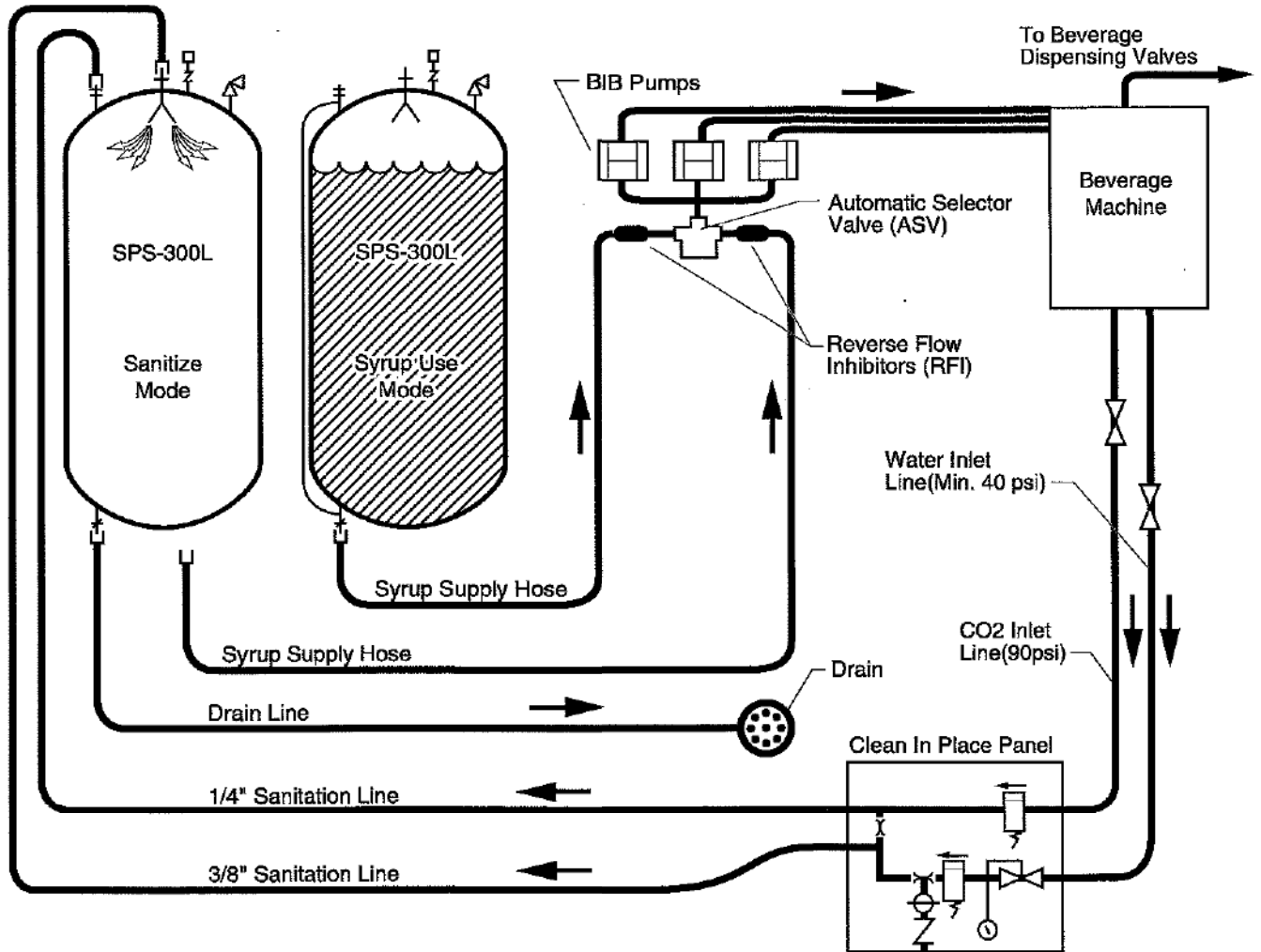
MVE, Inc.
3505 County Road 42 West
Burnsville, MN 55306-3803
USA
Telephone: 952-882-5000
Fax: 952-882-5185

NON-SCHEDULED MAINTENANCE












1. The only user serviceable parts are the Air Intake Filter and Air Intake Check Valve. Call an authorized service agent for all other work.

2. **NOTE:** Any attempt to service this equipment by unauthorized persons will void the warranty.

SYSTEM SCHEMATIC



KEY

- | | | | |
|---|-------------------|---|-------------------------------|
|  | Relief Valve |  | Check Valve |
| Male Fitting symbol" data-bbox="125 628 145 642"/> | 3/4" Male Fitting |  | Solenoid/Check Valve |
| Male Fitting symbol" data-bbox="125 648 145 662"/> | 3/8" Male Fitting |  | Regulator with Pressure Gauge |
|  | 2 Pin Fitting |  | Venturi |
|  | Air Intake Filter |  | Needle Valve |
|  | Isolation Valve |  | Orifice |
|  | Female Coupler | | |

INTERBULK SPECIFICATIONS

The InterBulk Syrup System includes:

- ◆ Two or more Bulk Syrup Tanks (the number of tanks depends upon syrup usage)
- ◆ Installation Kit with Clean-in-Place Panel (CIP)
- ◆ InterBulk Label Kit

Technical Data	Bulk Syrup Tank	
	Model SPS-300L	SPS-300L CB *
Capacity (net):	300 liters	300 liters
Capacity (gross):	316 liters	316 liters
Tank Diameter:	560 mm	560 mm.
Overall Width:	560 mm	746 mm
Height:	1714 mm	1689 mm
Weight (empty):	48 kg	76 kg
Weight (full):	425 kg	452 kg
Working Pressure:	non-pressurized	non-pressurized
Construction:	stainless steel	stainless steel
Design:	NSF-Std 18	NSF-Std 18
Type:	stationary	portable (w/casters)

* Optional portable unit for stores in which tanks must be moved to receive syrup delivery.

Technical Data for Clean-in-Place Panel	
Height with Reservoir	560 mm
Width	280 mm
Depth	125 mm
Capacity of Reservoir (net)	3.2 liters
Capacity of Reservoir (gross)	3.78 liters
Power Requirements	
• Electrical	24V, 30VA, 50/60 Hz
• Potable Water	minimum 2.8 bars
• CO ₂	6.2 bars
Construction	stainless steel
Installation	wall mounted

NOTES: