

Trico Corporation

Spectrum Essential Oil Storage System

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TABLE OF CONTENTS

TABLE OF CONTENTS	1
INTRODUCTION	2
IMPORTANT SAFEGUARDS	2
WARNINGS	3
Electrical Precaution	3
Flammable Liquids	3
Static Discharge	3
Running Dry Gear Pumps	3
Possible Pinch Point	4
Possible Tipping Point / Caution While Moving	4
OVERVIEW	5
STEP-UP & INSTALLATION	6
Time, Materials, Personnel, and Tool Requirements	6
System Placement Determination	6
Attaching Watchdog Extreme Humidity Desiccant Breathers (Part # WG-050205-EX)	7
Spectrum Color Coding	7
Mounting the On/Off Switch for the Electric Motor	8
Powering the Electric Motor/Pump	8
Mounting the Air Regulator Assembly for the Pneumatic Motor	9
Supplying the Pneumatic Motor with Air	10
Adding Additional Storage Stacks (Part #37202) to Expand the System	11
OPERATION INSTRUCTIONS	14
Filling Storage Tank	14
Dispensing Lubricant	16
MAINTENANCE CHECKLIST	17
MOVING THE SYSTEM	17
TROUBLESHOOTING	18
REPLACEMENT PARTS	19
TEMPERATURE VS. VISCOSITY	20
LIMITED WARRANTY	21

Spectrum Essential Oil Storage System

INTRODUCTION

Trico Spectrum Oil Storage Systems are an innovative solution to resolving bulk oil storage issues for constricted space requirements. They allow expansion from the base unit while eliminating contamination issues. Storage systems are available with up to a 6-tank configuration depending on your bulk storage requirements. All systems come standard with 1-1/4" Heavy Wall Wire-Yarn Reinforced clear Phthalate Free PVC lines and brass shutoff valves. Gravity dispensing valves are standard self-closing bronze with a 3/4" NPT nozzle threading. The tanks are filled using a manifold system with independent T-Handle valves for each tank, as well as a drain flush valve to minimize cross-contamination. Each 2-tank stack comes with a 73 Gallon Spill Containment Reservoir with a built-in dispensing tray area. The electric motor and pump combination draw a maximum of 15.0 amps requiring the system to be placed on a separate 20-amp circuit. The pneumatic motor generates a maximum 4 HP at 3000 RPM and can have a maximum inlet pressure of 100PSI. The industrial grade gear pump is positive displacement and self-priming.

Fluid Capacity per Tank	65 Gallons
Containment Capacity	73 Gallons (>110% per Spill Container)
Tank Sight Gauges	3 @ 1" NPT Steel Viewports
Tank Lines	1-1/4" Heavy Wall Wire-Yarn Reinforced clear Phthalate Free
Tank Shut Off Valves	Brass Ball Valves
Dispensing Valves	Self-Closing 1" Bronze with 3/4" NPT Threading
Max Temperature	150°F/65°C
Max Viscosity	12,000 SUS (2600 cSt) → ISO 680 at 70°F
Pump Head	Industrial Grade Gear Pump
Pump Relief	105 PSI
Max Flow Rate @ ISO 32, 70°F	4.5 GPM (Electric Motor)
Electric Motor	1-1/2 HP TEFC @ 1750 RPM 60 Hz → #37200
Electric Motor	1-1/2 HP TEFC @ 1425 RPM 50 Hz → 37257
EL IAA D .:	115V, 60Hz, 15.0A, NEMA 5-20P
Electrical Motor Rating	220V, 50 Hz, 11.7 A, NO END PLUG
Max Pneumatic Motor Speed	3000 RPM
Max Supply Pressure	120 PSI
Rack Weight Capacity Rating	2500 LBS
Wetted Parts Material Composition	Steel – Stainless, Galvanized & Zinc Platted; Viton; Buna; Brass; Bronze; Iron – Galvanized & Black-Coated; PVC; Aluminum

Warning: Do not store flammable products with a flashpoint below 200°F, products with a pH below 3, or products with a pH above 13. Storing unapproved products can result in serious bodily injury or death and will void any product warranty.

IMPORTANT SAFEGUARDS

- 1. **Read and Retain Instructions -** All safety and operating instructions should be read before using the Spectrum Oil Storage System. They also should be retained for future reference.
- 2. **Heed Warnings** All warnings on the product and in the operating manual should be adhered to.
- 3. **Follow Instructions -** All operating instructions should be followed.
- 4. ALWAYS wear appropriate Personal Protective Equipment while operating this system.
- 5. ALWAYS check that all system hoses and fittings are securely fastened and in good working condition before operating this system.

Spectrum Essential Oil Storage System

WARNINGS

Electrical Precaution

Always use safety around electrical equipment, follow instructions to prevent electrical shock. Electrical shock may cause death or other serious bodily harm. Although the Trico Spectrum Oil Storage Systems are designed with Totally Enclosed, Fan-Cooled (TEFC) motors they cannot be submersed into liquids. Use precaution when operating in wet environments and do not allow excess lubricant to encounter electrical components. If fluid does encounter electrical components, immediately disconnect the power by removing the electrical plug at the outlet or turn the power off at the breaker.

Amperage draw from the electric motor varies due to load at normal operating conditions. Full load amperage for the Spectrum Essential Oil Storage System is 15.0A (60 Hz), 11.7A (50Hz) and a separate 20 Amp circuit is recommended on a 60 Hz system. Failure to use the appropriate circuit type may cause overloading of the circuit and trip the breaker. Repeated attempts to use equipment on the same tripped circuit will cause an electrical fire. Ensure to consult a certified electrician to identify proper outlets before using equipment.

Flammable Liquids

Do not use with flammable liquids. Do not use in areas where there is presence of large amounts of flammable fumes. Failure to comply may cause an explosion. Always take precautions when working around open fuel sources.

Static Discharge

Due to the rate of flow of oils across different materials there is always a potential to build up a static charge. Static discharge can cause an explosion if near, or around, open flammable fluids. Bonding and ground safety procedures must be used when operating in hazardous duty environments or when there is a danger of static discharge. See National Fire Protection Code 77 for proper grounding and bonding procedures. It is the responsibility of the operator to properly inspect and ground equipment before use, no grounding cabling is included with this system.

The Trico Spectrum Oil Storage Systems are not rated for a hazardous duty environment due to possible static discharge, use proper bonding and grounding per National Fire Protection Code 77. A Bonding system connects various pieces of conductive equipment together to keep them at the same potential. Static sparking cannot take place between objects that are the same potential. Grounding is a special form of bonding in which conductive equipment is connected to an earthing electrode, or to the building grounding system, to prevent sparking between conductive equipment and grounded structures.

Grounding is an electrical connection between a metal vessel, pump, motor, and a constant ground. Failure to bond and ground properly can cause a discharge of static electricity resulting in fire, injury, or death. If in doubt, do not start the pump! Be sure bonding and grounding wires are secure before starting operation. (Ground and bond wires must have less than one-ohm resistance for safe usage. Check continuity before starting.) Always check with a safety engineer when any question arises and periodically check safety procedures with a safety engineer.

Running Dry Gear Pumps

The Trico Spectrum Oil Storage Systems are self-priming units. Lubrication is not provided to the pump gears at the factory before the units are shipped. After assembly and before operating for the first time, it is recommended to place a small amount of oil that is intended to be pumped into the suction wand line and allow the fluid to enter the pump gears by elevating the suction wand line higher than the



pump head. This should also be done whenever the units have been stationary for over a month or has been cleaned or serviced. *Running the pump gears dry will cause premature wear and shorten the life of your system.*

Possible Pinch Point

The Trico Spectrum Oil Storage Systems use Self-Closing 1" Bronze Dispensing Valves. These valves are spring loaded to always remain closed. Due to the nature of the self-closing valves, a pinch point may be present on the valve when opening and closing the valves. This pinch point is greatly enhanced when the dispensing valve lines are under pressure, causing a greater force to open, and ultimately close the valves. Please use caution when using the valves and be aware this pinch point does exist.

Possible Tipping Point / Caution While Moving

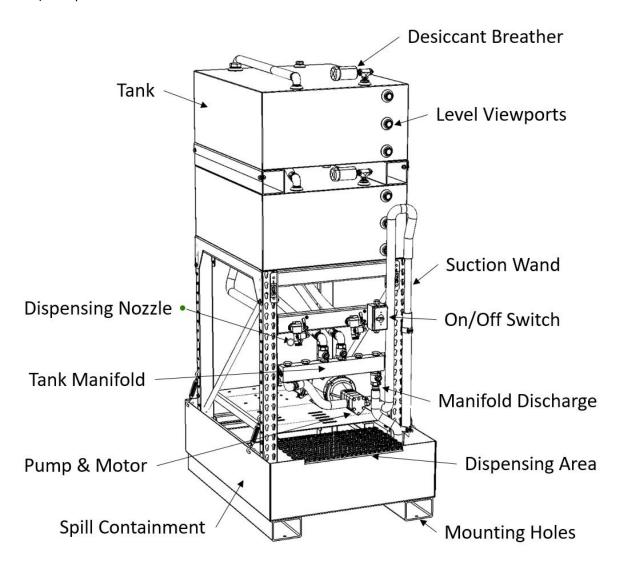
The Trico Spectrum Oil Storage Systems have an empty weight near 1,000 pounds per 2 Tank Stack. When the systems are filled with lubricants, they can easily weight over 2,000 pounds. Use caution while moving the system around. The system should be empty when moving. Use the appropriate equipment to move the system around. Please follow the *Moving The System* procedure in these instructions if the system needs to be moved.

DO NOT CLIMB on the Trico Spectrum Oil Storage System in anyway. Climbing on the system may cause the system to tip over and cause severe injury including death. The intended use of the system is to be fixed to the floor with the mounting holes located in the spill containment pan skid runners, on a flat, level surface.

OVERVIEW

Trico Spectrum Oil Storage Systems are meant to store petroleum-based lubricants in a clean, orderly, organized, space saving method. The Essential Stack is set up to be expandable up to 6 different tanks connected to one central motor/pump/manifold/tanks combination. The system is set up to have a main Pump Stack (Part #37200 60Hz Electric Motor, Part #37257 50Hz Electric Motor, or #37245 Pneumatic Motor) with additional Storage Stack (Part #37202) on each side of the Pump Stack. This would keep the main Pump Stack unit with the pumping system in the middle of the overall complete system set up. Keeping the motor/pump combination, on/off switch, tank manifold assembly, and the suction wand centralized in the system for easy use.

Below is an image of the Pump Stack (Part #37200) which will be used for installation purposes. Every Essential Stack will contain at least one Pump Stack, and up to two additional Storage Stacks (Part #37202) for up to 6 tanks on one tank manifold.



Spectrum Essential Oil Storage System

STEP-UP & INSTALLATION

Trico Spectrum Oil Storage Systems come almost fully assembled. They are meant to store petroleum-based lubricants in a clean, orderly, organized, space saving method. The system only requires the Watchdog Extreme Humidity Desiccant Breathers attached, the correct electrical outlet to plug the electric motor in, and to mount the On/Off switch to make the system usable. Whereas for the pneumatic version, it is attaching the Air regulator assembly, and providing an air supply. If more than 2 tanks were purchased, installing additional manifold valves, and attaching hoses for the additional tanks will need to be accomplished as well.

Note: Personal Protective Equipment ("PPE") should be worn when installing, operating, and maintaining this system.

Time, Materials, Personnel, and Tool Requirements

- Only one person is need to complete installation.
- Assembly Time is approximately 15 minutes for a standalone Pump Stack unit, an additional 30 minutes required for each add-on Storage Stack unit.
- Electrical hook-ups and installation should be completed by your authorized electrical personal in accordance with all local, federal, and building regulations.
- A narrow, 22" maximum width, hand pallet truck rated for at least 2,000 lbs can be used to move each unit into its final position.
- A pipe wrench for 2" pipes is needed for adding additional Storage Stack units to the Tank Manifold on the Pump Stack unit.
- All fittings already assembled on the system are tightened with thread sealant.
- 5/16 nut driver, or a crimp clamp tool, for tightening hose clamps.
- Adjustable crescent wrench for hex plugs on manifold.

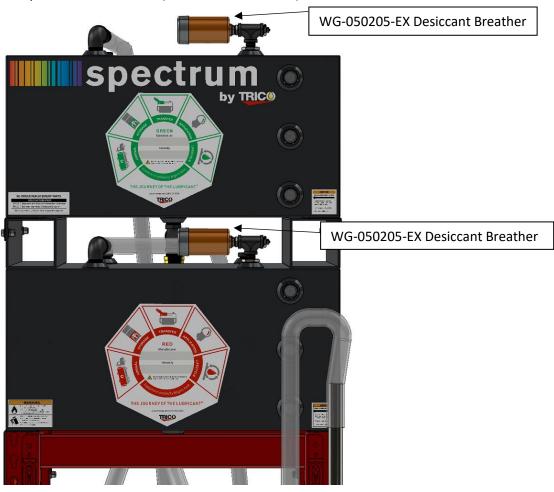
System Placement Determination

- The system is recommended for indoor use only.
- The system must be installed on a flat, level surface. The surface must have sufficient load-bearing capacity to support the total system (each 2-tank Stack weighs 2,000 lbs filled with lubricant).
- The system can be mounted permanently to the floor using the mounting holes in the Spill Containment. Mounting will not be covered in this manual and will be the responsibility of the end user to mount using the correct hardware.
- The electric motor on the 37200 60 Hz Electric Pump Stack has a full load amperage of 15.0A and a separate 20 Amp circuit is recommended for each Pump Stack. The electric motor on the 37257 220V 50Hz Electric Pump Stack has a full load amperage of 11.7A and a 15 Amp circuit is recommended.
- The pneumatic motor on the 37245 Pneumatic Pump Stack needs a maximum 120PSI air supply with a shut-off valve inline to a 1/4" air nozzle connection.
- There should be a minimum of 12" of space from the back of the Spill Containment. This provides room for the hoses. More room may be required behind the units for maintenance and easier access to the tank shut-off valves, up to 24".

Attaching Watchdog Extreme Humidity Desiccant Breathers (Part #WG-050205-EX)

- 1. Remove desiccant breathers from packaging.
- 2. Remove sticker from bottom of desiccant breather to allow airflow and activate the desiccant breather.
- 3. Install desiccant breathers on top of each tank. On top of each tank has a 3/8" NPT female fitting where the desiccant breathers will screw into.

Watchdog Extreme Humidity Desiccant Breathers (Part # WG-050205-EX) mounted shown below:

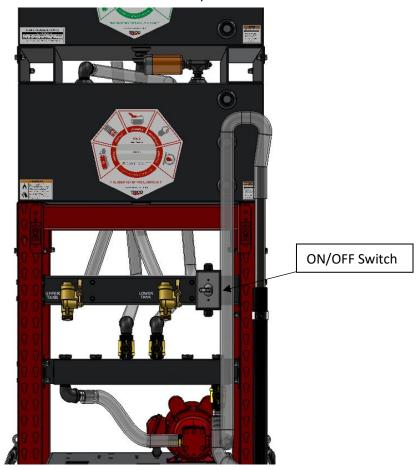


Spectrum Color Coding

The Spectrum Oil Storage System comes with Spectrum color coded tags and tank labels. Please ensure the tanks, corresponding manifold valves, and corresponding dispensing nozzles are color coded to easily identify the correct lubricant to dispense and fill. Assigning specific colors allows for a tagging system to be deployed throughout the lubricant chain within the facility. From the point of storage to the point of application, the operator will know which designated lubricant is to go to each specific lubrication point. Color coding lubricants from the time they enter the facility to the point of use will reduce the amount of lubricant cross contamination and misapplication that occurs in everyday top-ups, re-lubrication, and re-greasing activities.

Mounting the On/Off Switch for the Electric Motor

The On/Off Switch that controls the motor has been shipped loose, and not attached onto the system. The power cord connected to the pump has approximately 6 feet before the On/Off Switch. Once the best place for the On/Off switch is determined, remove the double-sided tape strip on the backside of the electrical box and mount the On/Off Switch. The On/Off switch is shown below mounted to the Dispensing Nozzle Bar; however, the switch can be mounted in any location.



NOTE: The electrical cord connecting the On/Off switch to the motor is not shown in the image above

Powering the Electric Motor/Pump

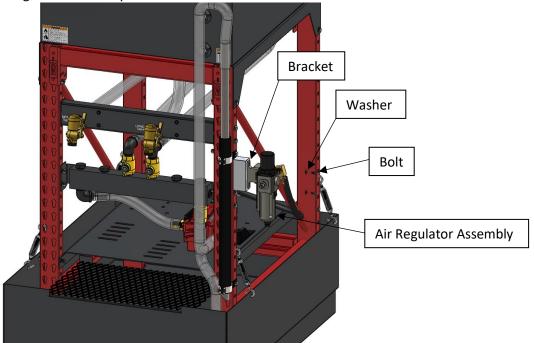
For the 37200 60Hz Pump Stack, the electric motor has a full load amperage of 15.0A and a separate 20 Amp circuit is recommended for each Pump Stack. Once the correct outlet has been installed by a certified electrician, making sure the On/Off switch is in the OFF position, place the NEMA 5-20P plug into the receptacle. The power cord from the electric motor has approximately 14 feet of cord until the plug.

For the 37257 220V 50Hz Pump Stack, the electric motor has a full load amperage of 11.7A and a 15 Amp circuit is recommended. Due to many different international requirements for electricity, a plug is NOT included on the end of the motor cord. A certified electrician can install the required receptacle and plug for the electric motor.

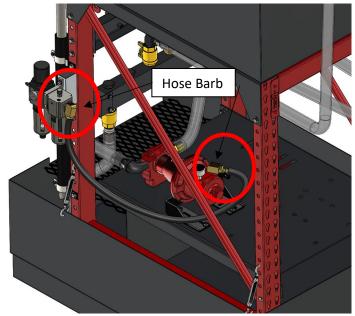


Mounting the Air Regulator Assembly for the Pneumatic Motor

The Air Regulator Assembly has been shipped loose, and not attached to the pneumatic motor. There is an aluminum mounting bracket attached to the racking upright for the Air Regulator Assembly below the dispensing rack. There are $2 @ 1/4-20 \times 1/2$ " bolts and washers that need to be removed from the aluminum bracket, and the Air Regulator Assembly needs to be attached to the aluminum bracket. The bolts, washers, and Air Regulator Assembly are shown below.



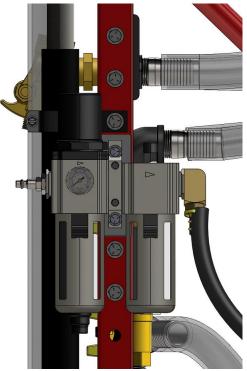
The Air Regulator Assembly needs to be connected to the pneumatic motor with the included 3/8" ID rubber hose. The hose needs to be connected to the push-on hose barb fittings shown below in the red circles. Cut the hose to the correct length, and attach the Air Regulator Assembly to the pneumatic motor.





Supplying the Pneumatic Motor with Air

Air entering the Air Regulator Assembly must be clean and dry for efficient operation of the pneumatic motor as well as to prevent motor damage. Lubrication is critical for efficient operation and long life of the pneumatic motor. Once the Air Regulator is connected to the pneumatic motor with the rubber hosing, supply air can be provided to the regulator. Each pneumatic motor needs a maximum 120PSI air supply with a shut-off valve inline to a 1/4" air nozzle connection. The 1/4" air nozzle is shown below on the front of the Air Regulator. There is no on/off control of the air supply, and a ball valve is suggested inline with the air supply to control the motor.

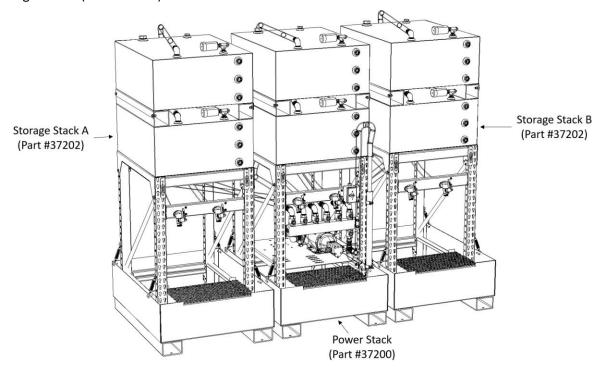


Fill the Lubricator oil reservoir located on the Air Regulator Assembly to the proper level with SAE 10W high detergent or non-detergent motor oil. For food processing applications, White Rex 425 food grade motor oil is FDA approved. Then adjust lubricator to feed 1 drop of oil for every 50 CFM of air while the unit is running, or 1 drop of oil per continuous minute of run time for high speed or continuous duty usage. Do not over oil or exhaust air may become contaminated.

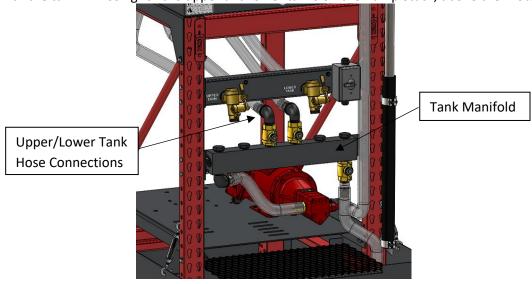
Adding Additional Storage Stacks (Part #37202) to Expand the System

The Spectrum Essential Oil Storage System is set up to be expandable up to 6 different tanks connected to one central motor/pump/manifold/tanks combination. The system is set up to have a main Pump Stack (Part #37200, #37245, or #37257) with additional Storage Stacks (Part #37202) on each side of the Pump Stack. This would keep the main Pump Stack unit with the pumping system and Tank Manifold in the middle of the overall complete system set up. Keeping the motor/pump combination, on/off switch, tank manifold assembly, and the suction wand centralized in the system for easy use.

Below is an image of a 6-Tank System containing one Pump Stack (Part #37200) and two additional Storage Stacks (Part #37202).



The Pump Stack (Part #37200, #37245, or 37257) comes with the two center Tank Manifold locations fitted with the tank fill hosing for the upper and lower tanks on the Pump Stack, above the Motor/Pump.

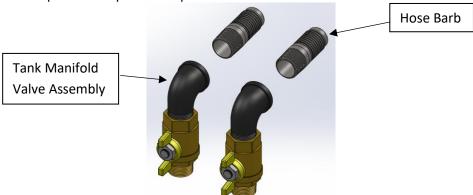


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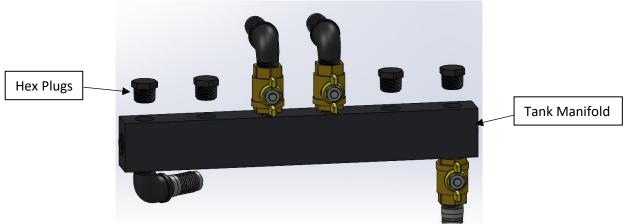
Spectrum Essential Oil Storage System

Each Storage Stack (Part #37202) comes with two Tank Manifold Valve Assemblies, two hose barbs, and both two hose clamps and two pinch clamps.

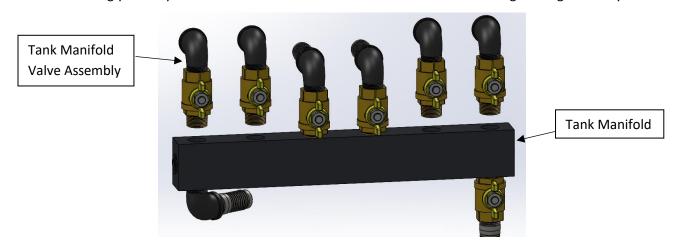


To attach the Tank Manifold Valve Assemblies:

1. Remove corresponding Hex Plugs from Tank Manifold to the location of the corresponding Storage Rack location will be – 2 from LEFT or RIGHT of center. Below all 4 are shown being removed for a 6-Tank system.

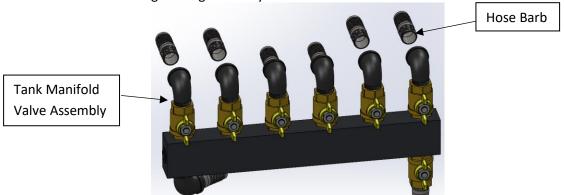


2. Attach the Tank Manifold Valve Assemblies to the Tank Manifold, starting from the center and working your way outward. Make sure to use a thread sealant on the fittings during assembly.

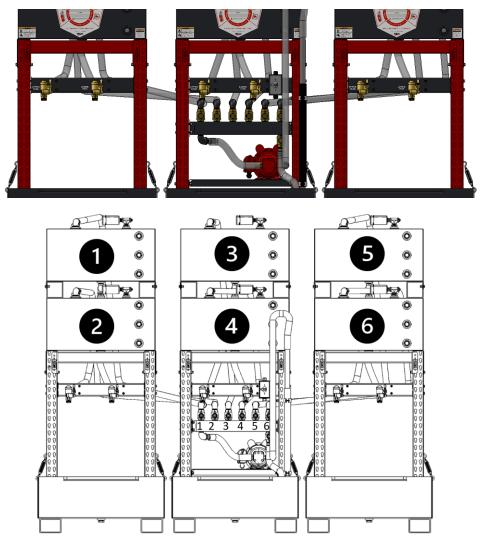




3. Attach the hose barbs onto the Tank Manifold Valve Assemblies. Make sure to use a thread sealant on the fittings during assembly.



4. Attach the hoses from the Storage Rack onto the hose barbs on the Tank Manifold Valves. The correct tank orientation is shown below. The upper tanks normally are the LEFT dispensing nozzle and LEFT Tank Manifold Valve Assembly. Use either provide hose clamps, or pinch clamps, to attach the hose securely to the hose barb.



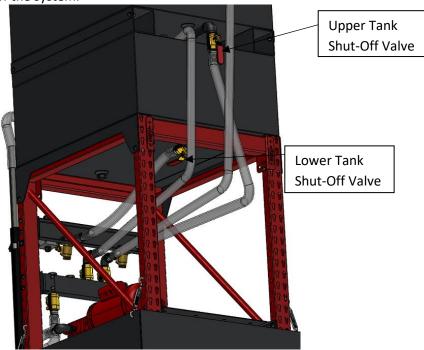


OPERATION INSTRUCTIONS

Filling Storage Tank

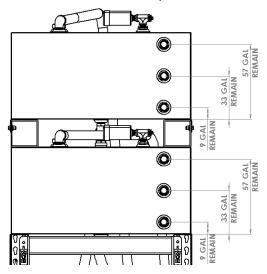
WARNING: The Tank Shut-Off valve, located under the tank, must be in the open position when operating the system.

1. Locate the Tank Shut-Off valve and open it for each tank. Valve locations are shown below looking from the back of the system.



2. Do not fill the tank with 55 gallons until there is room in the tank. The lubricant level should be at the bottom of the lowest Viewport on the tank before refilling the tanks. As noted below, the approximate remaining gallons at the center of the tank's Viewports are shown.

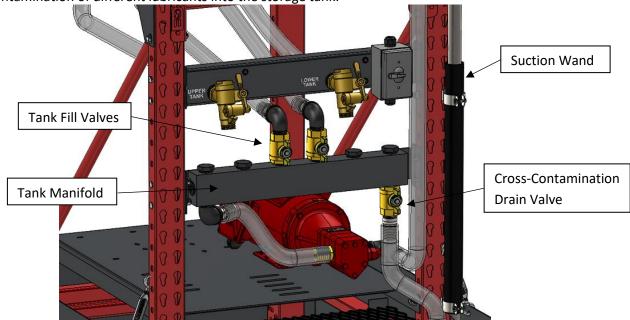
Center of Lower	9 Gallons
Viewport	Remain
Center of Middle	33 Gallons
Viewport	Remain
Center of Upper	57 Gallons
Viewport	Remain



Spectrum Essential Oil Storage System

WARNING: Do not overfill the Tank. Confirm there is enough room in tank before refilling with a drum. Best practice is to empty the tank before re-filling.

- 3. Once the tank has been emptied or confirmed to fit a drum or whatever size lubricant refill, it is now safe to fill the tank. Place the drum, or similar container, of the lubricant to be filled next to the Pump Stack or suction wand of the system.
- 4. Attach the appropriate static discharge cabling per National Fire Protection Code 77 to prevent static discharge from filling. Ground and bond wires must have less than one-ohm resistance for safe usage. Check continuity before starting (NOTE: Cabling is not provided).
- 5. Lift out suction wand from holder and make sure the wand is clean of any contamination. Then insert suction wand into the full drum of lubricant to be transferred.
- 6. On the Tank Manifold, close the valves to the tanks (upper valves), and open the drain valve (lower valve) to flush the manifold of any other product. This flushing is to prevent cross-contamination of different lubricants into the storage tank.



- 7. Start the self-priming gear pump by flipping the On/Off Switch to the "ON" position, or by turning the air supply valve open. The lubricant is now pumped from the drum, through the manifold, and out the drain hose. Once the lubricant is seen in the drain hose, and no other products contaminating the new lubricant, close the drain valve.
- 8. Once the drain valve is closed, open the correct corresponding tank valve where the lubricant will be stored. Now the lubricant should be transferred from the drum to the tank through the Tank Manifold.

CAUTION: Never leave pump unattended while using the system and the pump is powered ON.

Spectrum Essential Oil Storage System

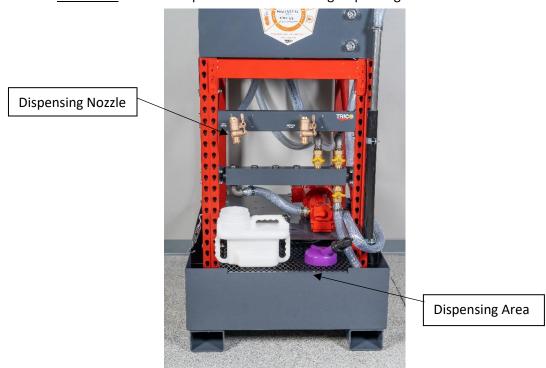
- 9. As the lubricant is being filled, check the Tank Viewports to avoid over-filling. Do not over fill the system tank, this will cause damage to the Watchdog Desiccant Breather.
- 10. To remove the remaining few gallons from the drum, tip the drum at approximately 30 degrees, with the suction tube placed at the bottom most portion of the drum. The positive displacement pump will completely evacuate all lubricant from the drum.
- 11. When the drum, or container, is empty, lift the suction wand out of the drum and allow the pump to pull any residual oil remaining in the hose out. Then turn the On/Off Switch to the "OFF" position, or by turning the air supply valve closed.
- 12. Remove suction wand from empty drum, wipe dry and place in holder.
- 13. On the Tank Manifold, close the valve to the tank (upper valves). This will prevent any access lubricant in the hose system to drain into the Tank manifold. This step also helps with the prevention of cross-contamination between lubricants on the next fill.
- 14. Remove the static discharge cabling and dispose of the empty drum appropriately.

Note: It is normal for air to be trapped inside the hoses during the initial filling of the system. Once the air bubbles have passed thru the system, fluid should be dispensed normally. If air bubbles continue to persist after initial fill, there may be a problem with a fitting, connection, or hosing.

Dispensing Lubricant

- 1. Place container on Dispensing Area below the correct tank Dispensing Nozzle.
- 2. Pull Dispensing Nozzle handle towards you, away from the system, to allow lubricant to flow.
- 3. Release Dispensing Nozzle handle and the flow will stop.

CAUTION: Pinch Point possible when releasing dispensing Nozzle handle.



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MAINTENANCE CHECKLIST

Trico Spectrum Oil Storage Systems should have scheduled, routine maintenance every three months after installation. Personal Protective Equipment ("PPE") should be worn when performing any maintenance service on the system.

CAUTION: The Tank Shut-Off valves, located under the tank, must be in the closed position when servicing the system. Main power supply should be removed and locked out before any service is performed.

- ✓ Check and replace Watchdog Extreme Humidity Desiccant Breathers. The orange beads will turn dark green indicating the desiccant has been used.
- ✓ Inspect all hoses for crack or kinks
- ✓ Inspect all fitting for leaks
- ✓ Inspect and tighten all bolts as needed
- ✓ Clean all surfaces and motor
- ✓ Empty Spill Containment pan either by the 1" NPT hole on bottom of pan, or by using the suction wand and discharge valve into a separate container
- ✓ For the pneumatic motor, check the Air Regulator assembly prior to use to confirm there is oil in the Lubrication reservoir

MOVING THE SYSTEM

Trico Spectrum Oil Storage Systems can be easily moved around with a hand pallet truck, or forklift. Follow the procedures below to relocate the system.

- 1. Empty all Tanks and hoses.
- 2. Close Tank Shut-Off Valves on the bottom of the Tanks.
- 3. Close all valves on the Tank Manifold on the Pump Stack.
- 4. Remove any additional Storage Stack hoses from the Tank Manifold.
- 5. Disconnect the power by removing the electrical plug at the outlet or turn the power off at the breaker to each motor. Or disconnect the air supply from the Air Regulator Assembly.
- 6. Empty and clean out Spill Containment.
- 7. Remove bolts from surface mounting holes, if mounted.
- 8. Move System into new location using a hand pallet truck or forklift. There should be a minimum of 12" of space from the back of the Spill Containment. This provides room for the hoses. More room may be required behind the units for maintenance and easier access to the tank shut-off valves, up to 24".
- 9. Once in place, continue with normal installation steps.



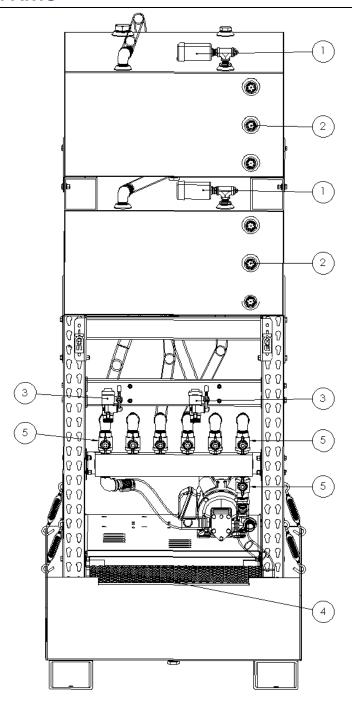
TROUBLESHOOTING

The following troubleshooting guide gives issues, causes, and corrective action. If any of these actions do not solve the issue entirely, please contact Trico for additional support.

Symptom	Possible Cause(s)	Corrective Action
Pump system does not prime	Suction wand above liquid	Ensure open end of suction wand remains completely below surface of liquid
	Clogged suction wand and/or discharge hose line and/or manifold valves are closed	Clean suction wand and/or discharge hose line and/or open manifold valves
	Suction wand line too long	Reduce length in suction line to reduce pressure
Insufficient flow	Clogged/ kinked discharge hose line or nozzle	Remove and flush discharge hose line and nozzle, inspect for damage
	Fluid viscosity exceeds recommended viscosity for motor	Check viscosity of fluid at temperature. See SUS vs. Temp. chart or contact fluid supplier. If viscosity exceeds maximum cSt, fluid must be warmed to reduce viscosity
Fluid Leaking from manifold or any fittings	Loose fittings and/or connections	Check tightness of hose/fitting connections
	Power On/Off switch not fully switched	Check On/Off switch
Electric motor does not	No power to receptacle	Check outlet for power and breaker
function/ or stops working	Unit has overheated tripping internal overload breaker	Turn unit power to the "OFF" position, allow motor to cool, turn back to "ON" position and resume filling
	Unit generates excessive heat	Fluid viscosity exceeds maximum recommended viscosity
Tank is not filling	Tank Manifold Valve is closed	Open Correct Tank Manifold Valve
Tank is not dispensing fluid	Tank Shut-Off Valve is closed	Open Tank Shut-Off Valve below the tank to have gravity feed for the Dispensing Nozzle
	Dispensing Nozzle is clogged	Clean Dispensing Nozzle to remove contamination or clogs



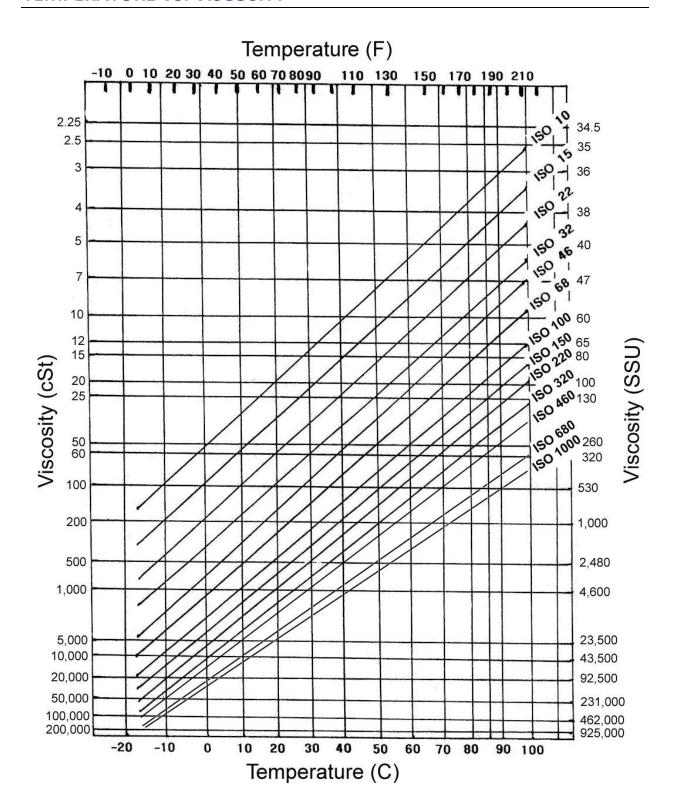
REPLACEMENT PARTS



Item #	Part Number	Description	Qty
1	WG-050205-EX	Watchdog Extreme Humidity Desiccant Breather	2
2	34307	1" NPT Viewport with Baffle - Steel	6
3	18363	1" NPT Dispensing Nozzle - Brass	2
4	18313	Dispensing Area Expanded Metal PVC Coated Mesh	1
5	18337	Tank Manifold T-Handle Valve, 1" NPT, Brass	Up to 7
Below Tanks	18354	Tank Shut-Off Valve, 1" NPT, Brass	2



TEMPERATURE VS. VISCOSITY



Spectrum Essential Oil Storage System

LIMITED WARRANTY

Trico warrants to the original purchase only, that these Spectrum Oil Storage Systems (the "Product") are free from defect in material and workmanship and will remedy any such defect according to the terms of this Limited Warranty. Trico will repair (or at its option, replace) at no charge any defective component(s) of Trico's Spectrum Oil Storage System for twelve (12) months from date of purchase.

To make request or claim for service under this Limited Warranty, the original purchaser must return the Product, shipping prepaid, in the original shipping container or equivalent, to Trico, after receiving return authorization from Trico and assuming the risk of loss or damage in transit.

This Limited Warranty shall not apply if the Product has been damaged due to abuse, negligence, misuse, misapplication, or accident after the Product has been shipped. Trico does not warranty any damage cause by third party or malicious software.

ALL EXPRESS AND IMPLIED WARRATNTIES FOR THIS PRODUCT, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO A PERIOD OF ONE (1) YEAR FROM THE DATE OF PURCHASE FOR THE SPECTRUM OIL STORAGE SYSTEM, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THESE PERIODS.

IF THIS PRODUCT IS NOT IN GOOD WORKING ORDER AS WARRANTED ABOVE, YOUR SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT AS PROVIDED HERE. IN NO EVENT WILL TRICO BE LIABLE TO YOU FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, EVEN IF TRICO HAS BEEN ADVISED OF THE POSSIBLITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state. If any provision of this Limited Warranty is held to be unenforceable for any reason, it shall be modified rather than voided, if possible, in order to achieve the intent of the parties. In such event, all provisions of this Limited Warranty shall be deemed valid and enforceable to the full extent.

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