LUBRIGARD

Poly Tank Pod

Installation Instructions

POLYTANK POD INSTALLATION INSTRUCTIONS

1. Unpack shipment.
2. Check parts manifest to make sure all parts have been shipped
3. Steel Frame set up:

a) Remove poly tanks from steel frame.

b) Lay steel frame on it's side on the floor and secure the 4 – 17" steel legs to each frame hole.

c) Install steel drip pan frame. Tighten both drip pan bolts to secure it to the front frame legs.

d) Place POD spill containment pan at its final resting spot in your lube room then with the aid of 2 people pick up the steel frame unit standing it upright on its legs .Once the frame is upright, lift the complete frame unit and place it inside the spill pan. There are 4 square steel plates with a stand pipe on them. Place each steel plate into the frame legs by tilting the frame forward enough to allow the steel plate pipe to insert into the bottom of the frame legs. Repeat this procedure for the rear steel plate and pipe install. When all 4 steel plates and piping are installed on the frame legs, you can then adjust the system so that all support plates rest on the U channel. You want the weight of the POD system to be resting on 4 legs with steel plates onto the spill pan support channels located underneath the spill pan unit. See Fig. 3D1

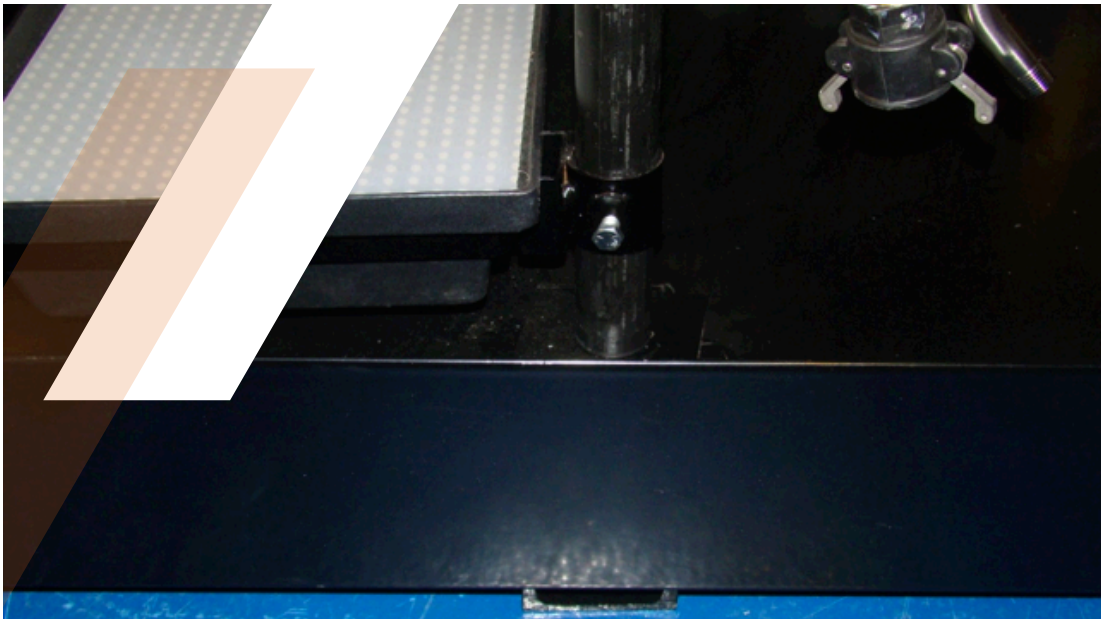

FIG.3D1. PLACEMENT OF THE STEEL FRAME INSIDE THE SPILL CONTAINMENT PAN. NOTE THAT THE LEG/PLATE IS RESTING ON THE "U" CHANNEL. NEW VERSION HAS THE U CHANNEL INVERTED OR OPEN FACED ON THE FLOOR.

POLYTANK POD INSTALLATION INSTRUCTIONS

e) Install the steel L bracket / Hose holder brackets (HHB) to the top steel bar of the frame system. This HHB can be installed on either side of the frame with the supplied 2- 3/8 x 2" bolts and nuts for each end of the "L" bracket. (Note: Bracket may arrive pre-installed). See Fig.3E1

FIG.3E1 HOSE HOLDER BRACKET INSTALL.

f) Install the air valve block using the 2 - #10 x 2" screws. The install will be on the right side of the side frame. Holes are pre-drilled for easy install.

g) Install the 90 degree air hose fittings to the valve block unit. Install the necessary plugs to the valve block unit. See Fig.3G1

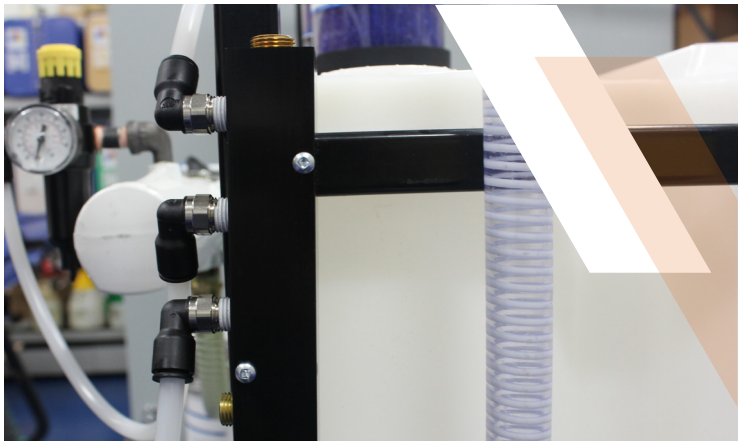

FIG.3G1. COMPLETED VIEW OF AIR VALVE BLOCK WITH FITTINGS, HOSE AND PLUGS FOR A 3 TANK SYSTEM

h) Install the drip pan and screens to the steel drip tray holder.

POLYTANK POD INSTALLATION INSTRUCTIONS

4. Poly Tank Hardware install:

a) Place the Poly tank so that the unit has the steel plate facing upwards so that you can access the bushing plugs easily.

b) Remove the 2 – ¾ plugs on the left side of the poly tank. These are top and bottom plugs that will be used for your 3 way vale fittings.

c) Prepare each 3 way valve fitting with proper sealant tape or paste and install them to the top and bottom ¾ “steel bushings of the tank.

d) Prepare the ¾ nipple fittings to the ¾ male quick connect fittings with sealant tape or paste and install them to the ends of the 3 way valves. Add the male ¾ dust caps.

e) Install the 1 to 3/4” bushing to the air pump inlet. Install the check-valve unit to the air pump. Install the 3/4 swivel fitting to the check valve. This completes the pump hookup.

f) Attach the hoses to the 3 way valves insuring that each threaded end is sealed with sealant tape or paste. The Hose from the filter outlet to the top 3 way vale is then installed and tightens. Then move to the next hose and repeat. Do the same for the hose for the pump suction inlet and attach it to the bottom 3 way valve fitting. Attach the pump outlet hose to the filter inlet fitting. This will complete the tank hose hook ups. Make sure that all the hose ends are tightened. See Fig.# 4F1

FIG.4F1. POLY TANK COMPLETE WITH PUMP, FILTER, HOSES, VALVES AND QUICK CONNECTS.

POLYTANK POD INSTALLATION INSTRUCTIONS

5. Install the completed poly tanks into the rack frame unit.

a) Place the bottom lip of the steel face place to the frame plate lip. The lip of the steel face place will overhang on the frame plate lip. See Fig. 5.A.1

SEE FIG.5.A.1 – STEEL FRAME PLATE BAR WEDGED BETWEEN THE POLY TANK AND THE STEEL PUMP

b) Place the remaining poly tanks on top of the bottom tank inside the steel frame unit.

6. Install the 2”x1” bushing and DC-2 air breathers to the poly tanks.

7. Install the air regulator and air pressure gauge to the air pump.

8. Install the 90 degree air hose fittings to the air regulators on each of the air pumps.

9. Measure and cutting the 3/8 plastic tubing to fit the air regulator to the air valve block fitting.

10. Install the spin on filters to the aluminum head of each poly tank unit. Insure that the gaskets for the filters are lubricated and then tighten the filter by hand and use a filter wrench to snug the filter in place. Do not over tighten. (10 foot LBS is all that is needed).

11. Suction and Dispensing hose :

a) Each poly tank has 1 suction hose and 1 dispensing hose.

b) To complete the suction hoses, simply use sealant tape or past to each hose end and install the 3/4 Female quick connects to one end and then install the 3/4 male camlock fittings with cover caps to the other end of the suction hoses.

c) To complete the dispensing hoses, simply use sealant tape or paste to each hose end and install the ¾ female quick connects to one end and then install the ½ dispensing handle to the ½ dispensing hose end.

d) Install 6- ¾ male quick connects to the Hose Holder Bracket ¾ male ends. Attach the suction and dispensing hoses to this HHB.

e) The spare ¾ male nipple on the hose holder bracket will be used for the drum adaptor kit. Install the male ¾ camlock fitting to this nipple.

POLYTANK POD INSTALLATION INSTRUCTIONS

f) Drum adaptor: use sealant tape or paste for each of the threaded adaptor piping. The ¾ npt male pipe will have the ¾ Female camlock installed on to it. The ½ drum adaptor pipe will have the ½ to 3/8 coupler on it. This coupler will hold the DC-BB breather. Install both steel piping tubes to the drum adaptor 2" fitting. Attach the drum adaptor to the hose holder bracket male camlock fitting.

g) Completed view of the Hose kit and Drum adaptor kit. See FIG.11G1

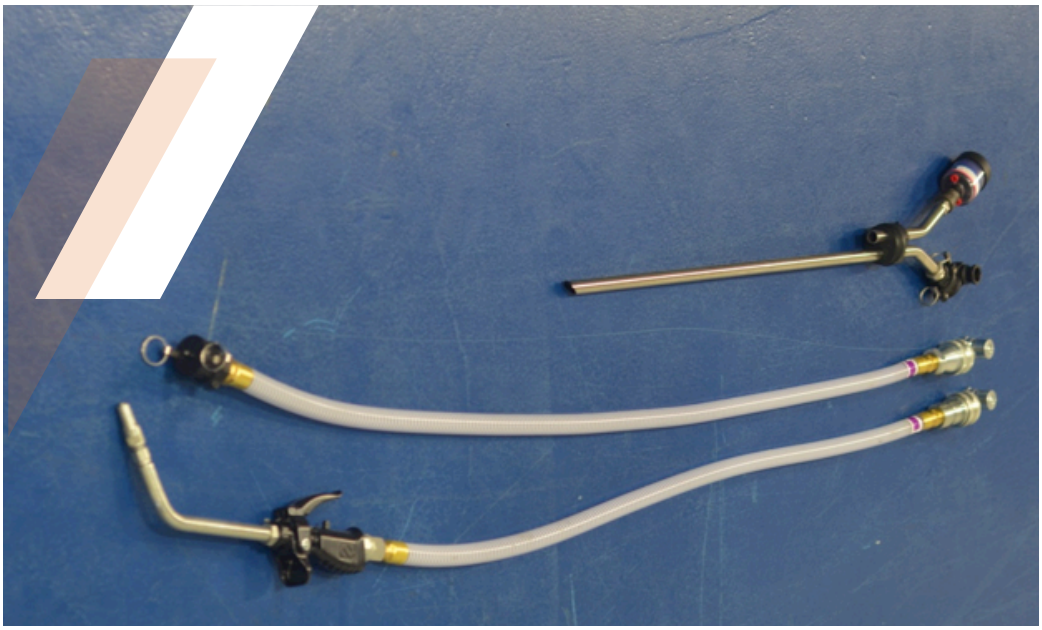

FIG.11G1. COMPLETE VIEW OF SUCTION, DISPENSING HOSES AND DRUM ADAPTOR KIT.

Setting air pump pressures:

The Sampson 1:1 air piston pumps are rated for maximum air pressure of 80 psi. The air regulator however is the tool that will allow you to regulate the amount of air pressure to the pump and this will determine the oil flow rates for the system. The air regulator pressure will need to be adjusted based on the oil temperature and viscosity of the oils to maximize flow rates.

Note: The system does not come with an air line oiler system. Client should look at adding this to their compressor system.

POD OPERATION

OIL TRANSFER

Once you have attached your suction hose to the bottom quick connect on the 3 way valve fitting and to the steel oil drum adaptor female camlock you must then insure that the 3 way valve fittings are set in the proper oil flow direction. Bottom valve will indicate oil being pulled from the drum adaptor suction wand towards the inlet of the air pump. The oil flow will them enter the pump and exit the pump outlet to the spin on filter unit , then through the filter and upwards to the top 3 way vale fitting. Insure the top 3 way vale fitting arrangement has the oil being returned to the poly tank. At this stage of the procedure, you can take full advantage of the suction or transferring flow rate of the pump and you can adjust the pressure to allow for maximum flow rate through the system but not so much as to over pressure the system and push the oil flow into filter bypass. You should strive for 50 to 60 psi setting if the oil temperatures are 20+ degree C. in the room. The air pump has a maximum pressure of 80 psi at 7 gallons per minute without filtration, as a norm, but that can change with the oil viscosities and room temperatures. It is good practice to get familiarized with the air pump mechanics by adjusting the pressures and watching that the filter system doesn't go into bypass mode.

BOTTOM VALVE

TOP VALVE

AN EXAMPLE WOULD BE:

Room temperature is 23 deg.C , oil to be transferred is ISO 32, start air pump pressure regulator and raise it to 30 psi , see what it is doing to the oil filter . Raise air pressure by 10 PSI and keep checking filter gauge. As long as the gauge is in the green section then the filter is working and not in bypass. You can expect to have about 3 to 4 GPM at this setting. It is not uncommon to have 50 or 60psi setting for oil transfer. This procedure will change as the viscosities get thicker. You may find that you have to reduce the air pressure to allow the oil to pass through the filter unit. You may experience a slower flow rate thus taking a bit longer to empty the steel drum. This could be 2 to 4 gpm. The filter micron size and efficiency will also affect the flow rates. Use higher micron rated filters for thicker oils. For example, use 25 micron filter for ISO 150,220, 320 oil. Use 3 or 6 micron for light oils such as ISO 22, 32 , 46 , 68.and 100 oils.

We do not recommend filtration on systems with viscosities over ISO 460 .These oils maybe to viscous to filter and send the filter into bypass even at low pressure settings even at normal room temperatures.

OIL CIRCULATION

The air pressure setting for oil circulation can be lowered slightly to allow for a more complete filtration process by allowing a lower oil flow rate through the filter. The lower the pressure, the lower the flow rates but the better the filtration efficiency. You get more oil and more contaminants out by filtering it at a lower GPM and lower air pressure setting. Most clients will run the system for 2 or 3 hours or say a shift and close it down after that. A pressure setting of 30 to 40 PSI is a good target to set for this mode. Again, depending on the oil viscosity, temperature, filter type and micron size, a regulator adjustment will be required.

BOTTOM VALVE

TOP VALVE

OIL DISPENSING

The dispensing mode requires some air pressure adjustment as well. The handle itself will create a back pressure on the filter unit. It is important that you adjust the air pressure so that you can maintain the oil flow through the filter and to maintain a decent flow dispensing rate to fill your containers. If the pressure is to high then the flow over the filter will be to high and push the filtration into by pass mode. There is a 25 psi by-pass on the aluminum heads. A 2 to 3 GPM flow rate is a good target and is acceptable for small oil container filling. You could see air pressure settings around 30 to 50 PSI to accomplish this task.

BOTTOM VALVE

TOP VALVE

CARE AND MAINTENANCE

1- Good housekeeping will insure many years of dependability for your Poly Tank POD system.

2- Replace oil filters when needed. Gauge will have the needle in the red zone during circulation mode.

3- Replace Air breathers when needed. Desiccant will turn color from Blue to Pink. Replace unit when pink.

4- Clean out drip pans and screens on a regular bases. Many clients have a 1 week rotation to have the systems wiped down and the spill containment pans cleaned out and the drip pans cleaned out.

CLICK TO WATCH AN INSTALLATION VIDEO

CLICK TO WATCH AN OPERATION VIDEO

LUBRIGARD

Ph. 1-800-268-2131
Fax. 905-569-8605

email: info.sales@lubrigard.com
www.lubrigard.com

LUBRIGARD