



DIVERSIFIED STORAGE SYSTEMS
 (888) SILO-SYS (888) 745-6797

PD Tank Manual



Pictures above are for general layout purposes. Many detail features are left out or may be different from actual.

Silo Description

PD-TANK 2250™ is a specially designed portable vertical storage system for bulk powder products.

Some innovative features include: dual discharge systems (gravity or pneumatic), stable height-to-width ratio, low ground pressure (98 PSI) when fully loaded, oversize discharge piping for high speed unloading, integrated vent pipe to discharge pipe (no need for two hookup hoses), easy cleanout, level indicator option available, one valve operation and more practical than a guppy for long term storage applications.

Silo Specifications

Silo Capacity (c.f.)	2250 C.F.
Silo Capacity (Cement)	88 - 94 tons*
Operating Pressure	14.5 psig
Bottom Aeration	HV Flow-Cones (4)
Discharge Pipe	5" Sch. 40
Fill Pipe	5" Sch. 40
Vent Pipe	4" Sch. 40
Gravity Secondary Discharge	10" w/ Butterfly Valve
Top Manway	20" Press. dome Lid
Bottom Manway	20" Press. dome Lid
High Level Indicator	Optional
Low Level Indicator	Optional
Standard Operating Pressure	10 - 12 PSI
Over pressure relief settings	15 PSI
Pressure Gauges (2)	1-30 PSI

* Cement can weigh between 88 - 94 lbs. per cubic foot depending on how aerated it is.

PD-TANK 2250™ storage system has "patent applied for" components and proprietary systems. These unique system designs are the property of Diversified Storage Systems.

Patent Pending

Many design details on this silo are proprietary to DSS

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 Oxnard CA, 93030 Fax # 805-247-0246

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SET UP:

Foundation:

The PD Tank has been designed with a wide base. It can be placed on a level compacted soil or a cement/pavement foundation. The foundation needs to withstand 100psi down force.

The PD tank weights 20,000lbs. You will need a crane to erect the tank. (size of the crane depends on the location, Please let crane company determine the correct size crane.)

The silo is 12' diameter

37' in length

The silo weights 20,000lbs

The PD tank has three lifting lugs on top. Connect all three to raise tank.



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Operation:

The PD Tank has three connection points.

1. The fill line:

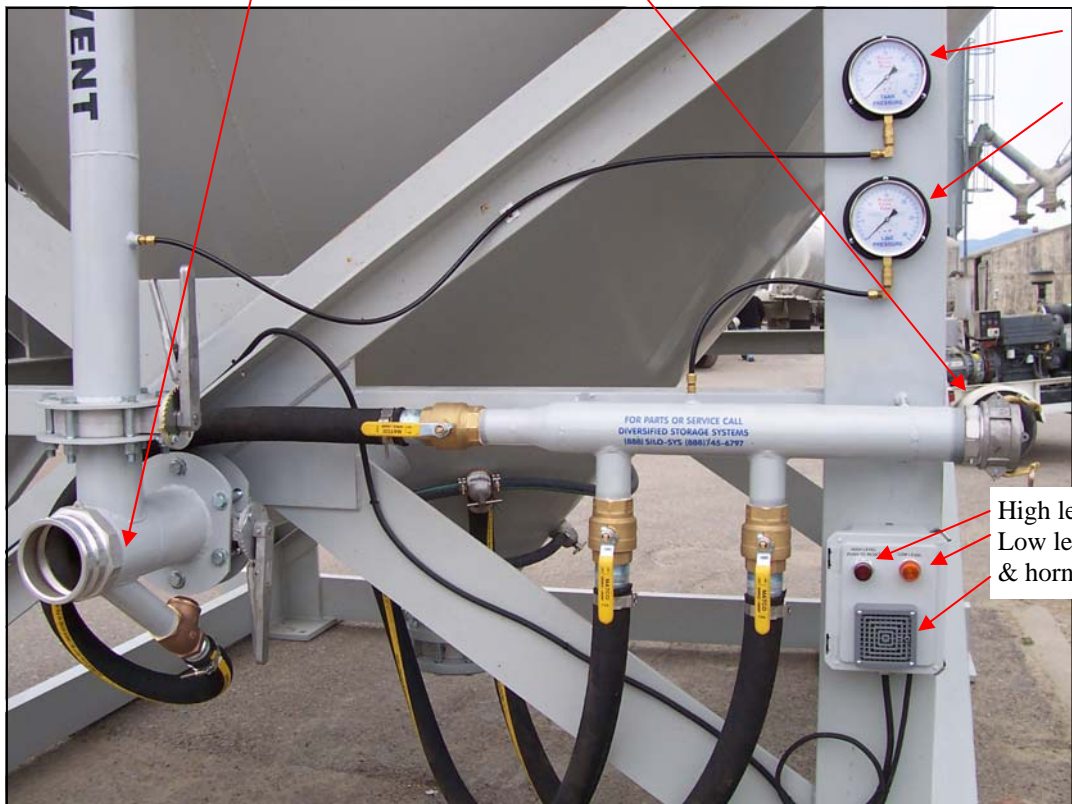
This is a 4" fill line with male camlock.
 Before filling make sure butterfly valve is open.

2. Hot Air inlet line:

This is the 3" line with male camlock.
 This line feeds air into the tank and into the cone fluidizers.

3. Product Discharge and vent line:

4" line with male camlock.



Tank pressure

Line pressure

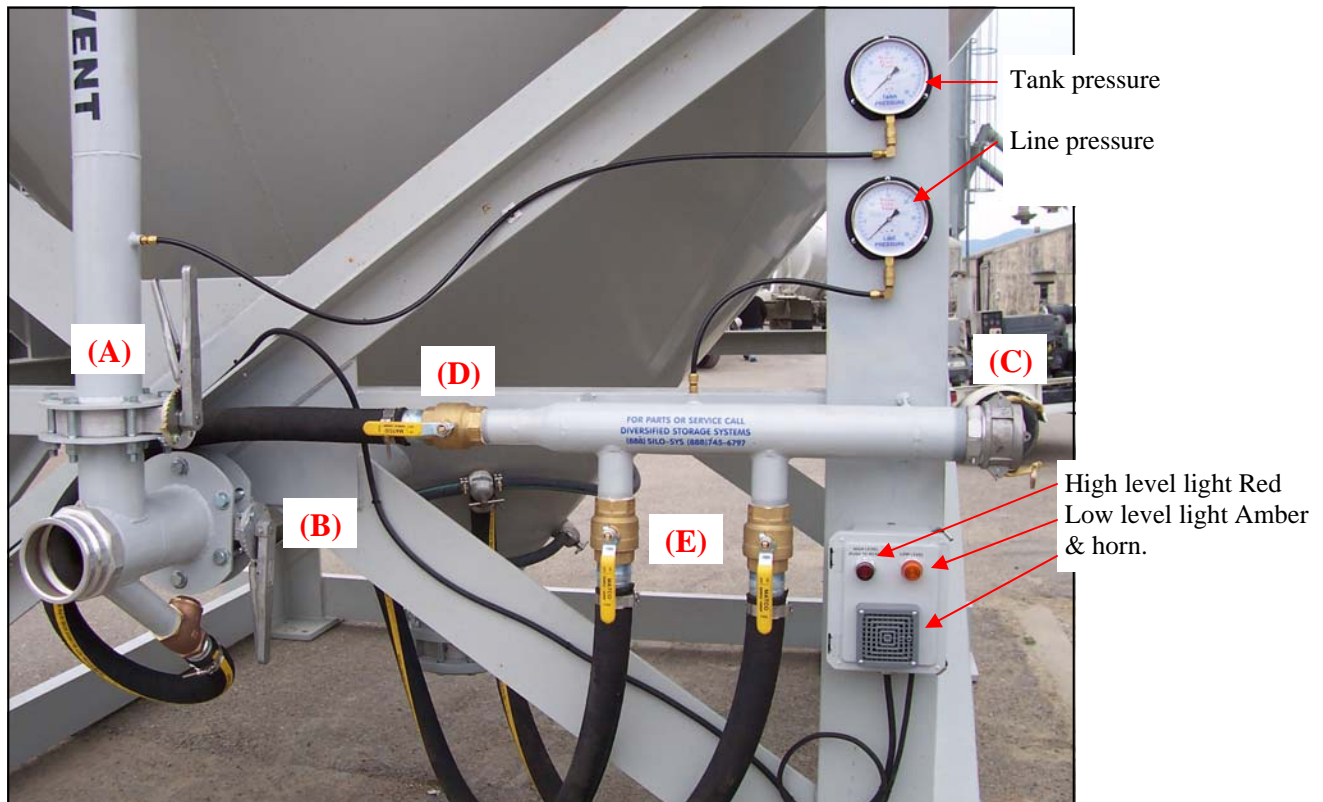
High level light Red
 Low level light Amber
 & horn.

Filling the tank:

1. Confirm Valve to tank **(B)** is closed
2. Attach a vent line to the discharge line. **(the tank needs to be vented into a dust collector/silo with dust collector).**
3. Open vent line **(B)** & confirm that tank has no pressure.
4. Hook the truck hose to the product fill line.
5. Make sure butterfly valve on fill line is open.
6. Open butterfly valve to vent line **(A)**
7. Confirm butterfly valve **(B)** to tank is closed.

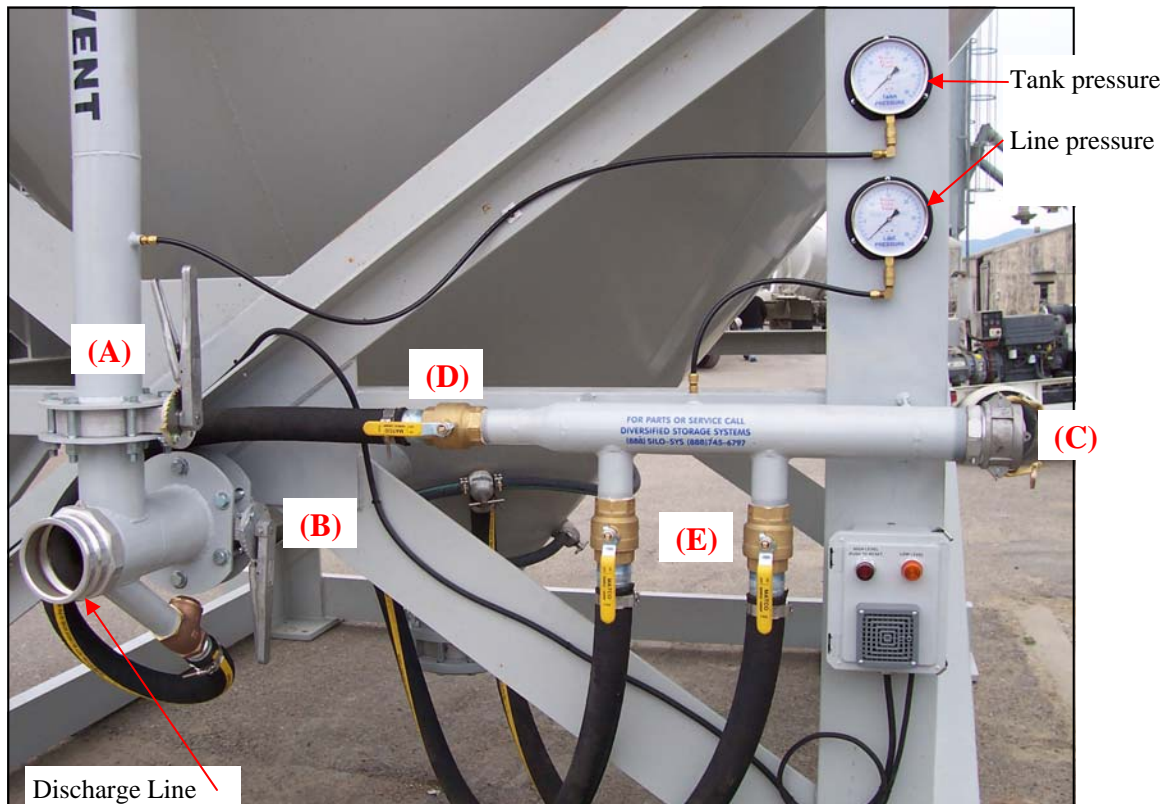
The silo has a hi level light & horn.
 Once the horn is sounded it means the tank is full and filling needs to be stopped.
 The red light will illuminate and pressing it will turn the horn off.

The tank may have an amber low level light. It will illuminate once the tank reaches that low level.



Discharge the tank:

1. Hook the hose from discharge line to receiving silo.
2. Make sure butterfly valve on fill line is closed
3. Close butterfly valve to vent line (A)
4. Close butterfly valve to tank. (B)
5. Hook the blower line to the inlet (C)
6. Open the fluidizer valves (E) before starting the blower. So you do not deadhead the blower.
7. Start the blower and pressure up the tank to **8psi**.
8. Open discharge valve (B).
9. Crack the chase air line (D) a little.
10. The tank pressure can then operate in the 8-10psi range.
11. Adjust valve (D) until tank is discharging at 8-10psi. If tank pressure goes beyond 10 psi open valve (D) more, if it goes below 8 psi close valve (D) more.





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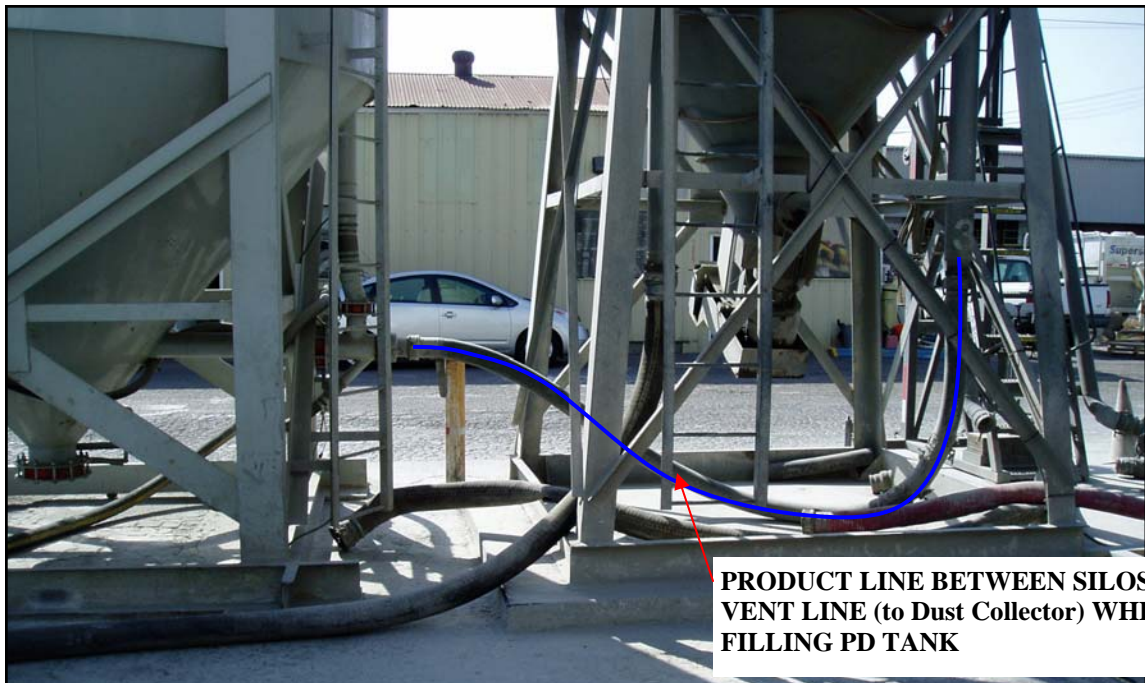
Parts List

Description	DSS Part #
2" Ball Valve F/F Brass	VA2-2
0-30 PSI dry gauge	GA4
1 port fluidizer assembly	FUSF1
3 port fluidizer assembly	FUSF3
4" cast iron butterfly valve	VA4C
5" cast iron butterfly valve	VA5C
2"-6" locking plate assembly	VAPT26-1
4"-6" handle assembly	VAPT46
10" cast iron butterfly valve	VA10C
8"-10" locking plate assembly	VAPT10-7
8"-10" handle assembly	VAPT10-6
14psi +/- 1 pressure relief valve 2" f/ pipe thread	VAPR2-14A
3" male camlock x female threads	CL3A
3" dust cap camlock	CL3DC
4" male camlock x male thread	CL4F
4" dust cap camlock	CL4DC
AC grille horn	ELP-1
8 pin terminal socket	ELRL-10
DPDT 120vac general purpose relay	ELRL-8
Bin level indicator	ELBN-2
Red light push button	EL8-10
Amber light	EL8-7
2" hot hose	H2H



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