



Liquid Systems



Liquid Room Considerations: There are several considerations to keep in mind when building a liquid room on farm such as having a:

1. **Heated room:** Having a heated room ensures all lines and pumps do not freeze during the winter months and allows for a better working environment for maintenance.
2. **Air compressor:** As most feeding operations tend to be dusty, having an air compressor available can prevent dust collection on pumps and tanks.
3. **Workstation:** Having an area to run dry matters, organize feed delivery slips, and keep feeding notes for the team is very helpful. This can be a built-in countertop or just a portable table to help keep things organized.
4. **Water line:** Is convenient to clean the floor and would require a floor drain.
5. **Manifolds:** Manifolds are very important in helping distribute liquid properly across the TMR. More than likely, you will need to utilize separate manifolds and hoses/pipes for water, whey, and molasses. Water will need to be drained to prevent freezing in the winter while molasses and whey can drain back into the tanks. Having a quick attach at the pump to unhook after feeding in the winter is helpful. The manifold is best located at the highest point of the system so that liquid can drain back down as seen in the pictures below:

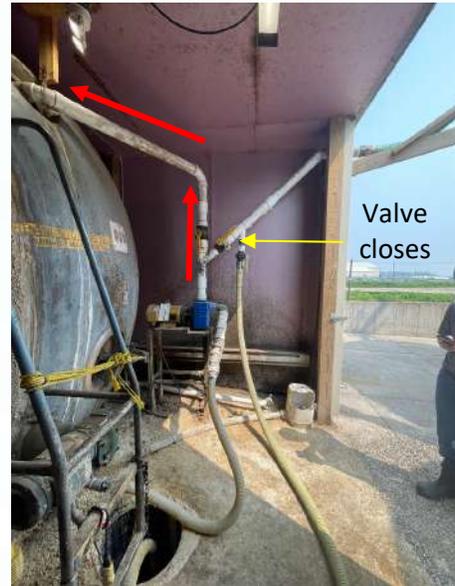
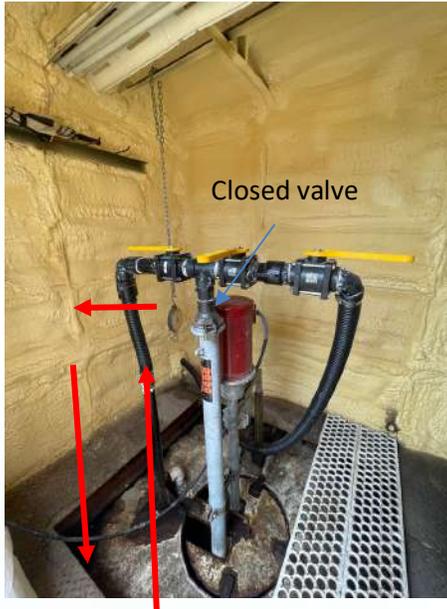




- 6. Pump size:** Experts recommend a pump size with at least 5 hp. Larger pumps, located underground, may be able to utilize 10+ hp. However, these setups may require steel piping and manifolds because of the increased pressure of the system.



7. **Loading port for whey and molasses:** Having a loading port allows the farm to accept a liquids delivery while also using the liquids, so there is no interruption to the feeding operations.
8. **Recirculation system:** These systems are important for liquid setups to ensure a consistent product over time. This is especially true for farms with “oversized” liquid setups. This can be accomplished simply by pumping the liquid back to the top of a container periodically for a uniform suspension of solids throughout the liquid and a more consistent TMR in the bunk.



9. **Automation:** Have a relay switch for automatic start and a button switch on wall for operating.
10. **Timers:** Using a timer to set as default on the relay switches is beneficial. It is also recommended to use a default timer to shut off after so many minutes in case someone triggers it accidentally.
11. **Over-filling pipe:** In the bottom left picture, you can see the tanks have an overfill relief so that liquid does not blow out the lid and all over the room. The overflow valves on the left allow liquid to be directed to a more desired area and prevents messy overflow as shown on the right. This system also has float markers to determine the amount left in the tank.



The data contained in this report is for informational purposes only and should not be relied upon and/or used with the farm's consent. The information contained in this report is for the use of GPS Dairy Consulting, LLC employees, GPS Dairy Consulting, LLC clients and chosen third parties only and cannot be shared.

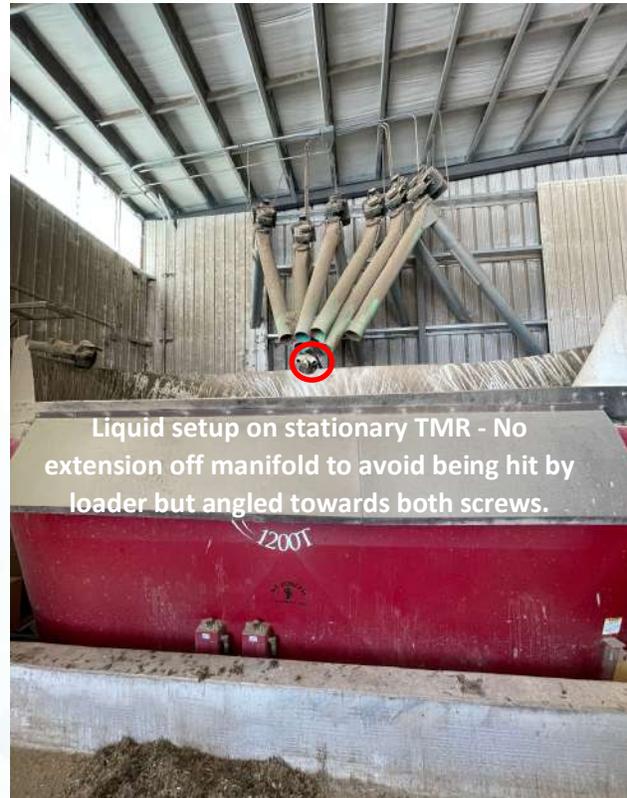
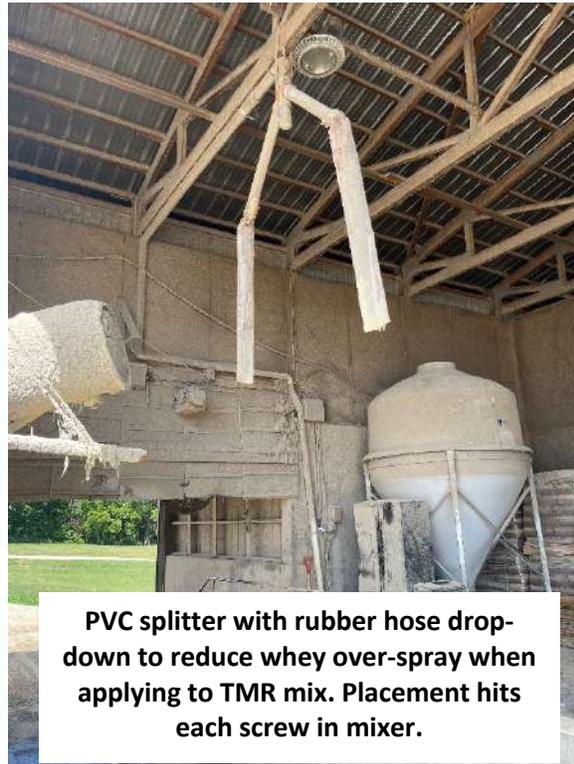
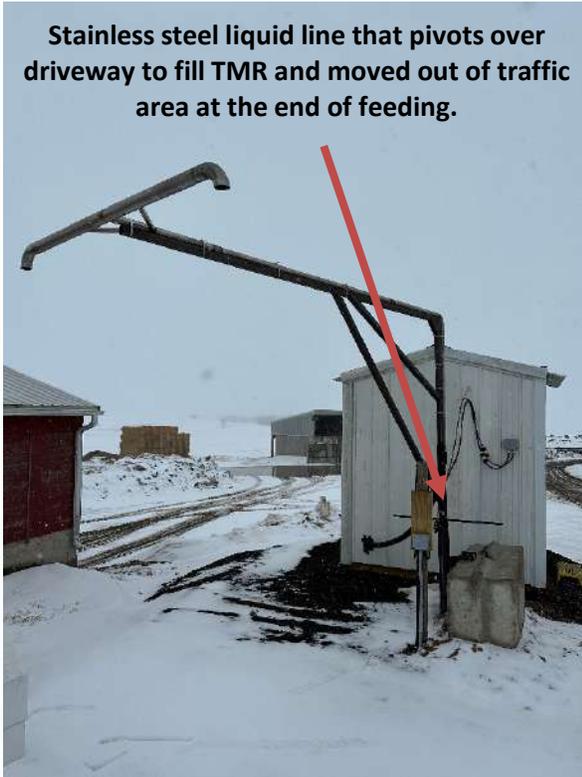
- 12. Cleaning:** Maintaining and keeping tanks clean are very important from a feed hygiene standpoint, but you should never enter a tank without proper respiration equipment. Liquid fumes can be deadly, especially whey products. Best practice is to work with a professional who knows how to safely clean the tanks. Our suggestion is to clean these tanks at least once per year.
- 13. Feed stabilizer:** Steps to add a feed stabilizer to liquid:
- Mix with whey in tank.
 - Pump directly from totes and pipe to liquid manifold as shown below.
 - Direct to TMR with pail or wheel loader bucket.
- 14. Trash barrel:** A clean work environment is important to reduce feed contamination as well as preventing tripping hazards (empty feed bags) for workers.

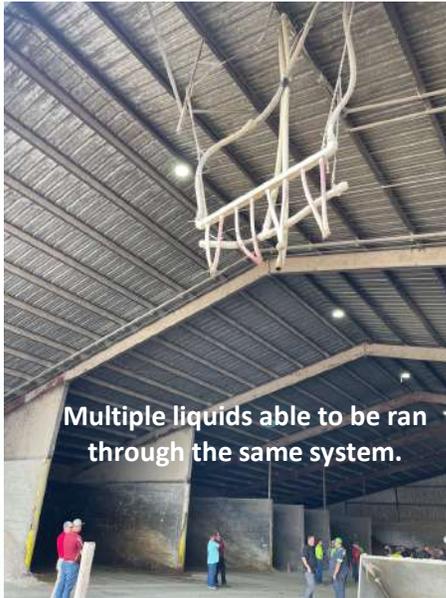


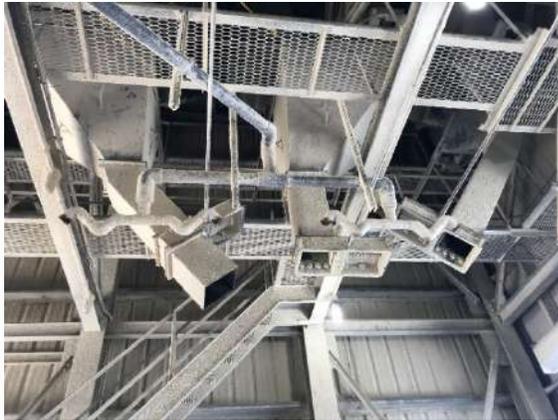


The data contained in this report is for informational purposes only. All images are pulled from Google and/or used with the farm's consent. The information contained in this report is for the use of GPS Dairy Consulting, LLC employees, GPS Dairy Consulting, LLC clients and chosen third parties only and cannot be shared.

Other liquid delivery setups:







Efficient liquid setup near bin boots to eliminate the need to move the mixer after adding bin ingredients to batch.

*The following reports are from an electronic tank level system that reads tank level daily and reports information to a software that is managed by a supplier to ensure product never runs out. Requires good cell signal to send information to software. It streamlines the ordering process so feeder does not need to monitor tank level.

Tank Details

Tank Name:	02-1-6000-1400	Cellular ID:	88235088305316	Location:	
Organization:	QLF Quality Liquid Feeds	Serial Number:	910053774	Address:	
		Number:	1	Product/SGU:	

Tank Usage

Date Range

Beginning Date: 1/1/2024 End Date: 2/5/2024 [Filter](#)

Information		Inventory Information	
Capacity:	6000.0 gal	Available Capacity:	4335.1 gal
Low Alarm:	28 %	Status:	Low Alarm
Critical Low Alarm:	23 %	Inventory Time:	2/5/2024 8:59:27 AM
Level:	42.2 in	Inventory:	1664.9 gal
Transport Status:	No Status	Active Days:	S M T W T F S

Estimated Shipment Information		Estimated Usage Information	
Number of Fills/Drains:	3	Time Span:	35.0 days
Last Fill/Drain Date:	1/20/2024	Actual Date Range:	1/1/2024 - 2/4/2024
Last Fill/Drain Amount:	980.9 gal	Total Active Usage:	5679.3 gal
Total Fill/Drain Amount:	5362.1 gal	Total Inactive Usage:	0.0 gal
Avg Fill/Drain Amount:	1,794.0 gal	Avg Daily Usage:	162.3 gal
Max Fill/Drain Amount:	3426.7 gal	Max Daily Usage:	208.1 gal
Avg Time Between Fills/Drains:	5.5 days	* Days to Alarm:	** InLA **
Avg Inventory:	3209.9 gal	* Days to Critical:	2.0 days
		* Days to Limit (Empty):	10.5 days

Tank Details

Tank Name:	02-1-6000-1400	Cellular ID:	88235088305316	Location:	
Organization:	QLF Quality Liquid Feeds	Serial Number:	910053774	Address:	
		Number:	1	Product/SGU:	

Tank History

Date Range

Beginning Date: 1/1/2024 End Date: 2/5/2024 [Submit Date Range](#) Days to Reorder: Days to Safety Stock:

Legend: Product (grey line), Low Alarm Level (red line), Critical Low Alarm Level (yellow line)

Possible remotes for controlling liquid pumps (Source: Angie Metcalf, QLF)

Grizzly T33310 - 240V Dust Collection Remote

★★★★☆ 4.2 (17) [Write a review](#)



☰

Double Tap to Zoom

\$87⁹⁵

Free Shipping!

T33310 Remote Switch System for 240V Dust Collectors

Add a remote control to your dust collection system.

Compatible with 240-volt dust collectors up to 3 HP, this switch box and remote control allow you to turn your dust collector on and off from up to 75 feet away.

This will save you time and energy – no more constantly walking back and forth to turn your dust collector on and off!

This system also conserves electricity and prevents unnecessary wear and tear; only keep your dust collector on when you need it.

To use, simply plug the dust collector into the switch box and then plug the switch box into a grounded 240V 6-20 receptacle. It is that easy!

The remote control and switch box come pre-programmed from the factory and are ready for use. No additional programming is necessary.

Visit the Jet Store 4.3 ★★★★★ 64
JET RF Remote Control for Dust Collectors, 1Ph 230V (DC-RC230)



Delivery

Pickup

Buy New

\$129⁹⁹

Details

Brand	Jet
Special Feature	Remote Control
Surface	Wood
Recommendation	
Power Source	Corded Electric
Voltage	230 Volts

About this item

- Works with dust collectors up to 3 HP (230V only)
- Allows operator to control a dust collector up to 50 feet
- Includes main unit and remote control transmitter (315 MHz)
- Simply plug in your dust collector to the transmitter for instant remote control--no wiring needed
- Backed by JET's industry-leading 90-day warranty against manufacturing defects

About this item

- **High Power Load:**The receiver adopts 40A relay, which can load high-power electrical appliances to ensure long-term stability control.(Note:max load:30A)
- **Strong Singal-Strong RF signal** works through walls and doors without any interference; Max range is up to 324ft with no obstacle.
- **IP65 Watertight construction-**Waterproof wireless remote control switch is suitable for indoor and outdoor use .use safely even in damp places.Please don't soak it in water.
- **Easy to Install-** Simply install the receiver between the devices to be controlled and the power supply. You can switch your device on and off from anywhere via the remote control switch panel.
- **Wide Application:**This long distance remote control switch is used in mud pumps, motors, lamps,fans,dust collect, insecticide machines, sprayers, car washers, bells, etc. various types of electrical equipment.

Brand: ZHOFONET 4.3 ★★★★★ 205
ZHOFONET Waterproof Remote Control Relay Switch, 328ft Long Range Wireless Remote Switch,DC 12V-72V Relay RF Remote Control Switches for Outdoor Light

Amazon's Choice



100+ bought in past month

Delivery

Pickup

\$25⁹⁹