

COSMO SPECIALTY FIBER - TREATMENT PLANT

FROM SOURCE TANK TO TRUCK LOADING

1. SOURCE TANK



EXISTING SOURCE TANK
10 HP SUBMERSIBLE PUMP
Pumps red liquor from source tank

2. EQUALIZATION / SPLIT TANKS

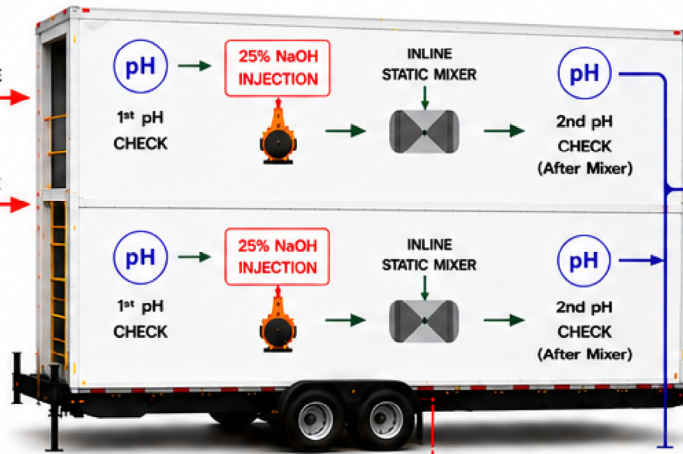


6,300 GALLON POLY CUBE (DIVIDED)
Two independent compartments
~3,150 gallons each side

LEFT COMPARTMENT
3 HP SUBMERSIBLE PUMP
Feeds left treatment train

RIGHT COMPARTMENT
3 HP SUBMERSIBLE PUMP
Feeds right treatment train

3. TREATMENT TRAILER (TWO INDEPENDENT TRAINS)



CHEMICAL SUPPLY - 25% NaOH



5,050 GALLON POLY TANK
Stores 25% Sodium Hydroxide (NaOH)

SUPPLIES CHEMICAL FEED PUMPS IN TRAILER

6. TRUCK LOADING



TRUCKS FILLED FROM SECOND FRAC TANK



CENTRIFUGAL PUMP (LOAD OUT)

5. SECOND FRAC TANK (LOAD OUT)



18,000 GALLON FRAC TANK
Used to fill trucks for off-site disposal

4. FIRST FRAC TANK



18,000 GALLON FRAC TANK

- Receives treated liquor from treatment trailer
- 3" SUBMERSIBLE PUMP - feeds Second Frac Tank
- CENTRIFUGAL PUMP (rear low port) - plumbed to 20 yard roll-off bin for sludge control

SLUDGE / DEWATERING CONTROL



20 YARD ROLL-OFF BIN
From First Frac Tank low port.
Pumps settled sludge to roll-off bin as needed.
Sludge management is operator controlled.

LEGEND

- Red Liquor Flow (Untreated)
- Treated On-Spec Flow
- Off-Spec Recirculation Flow
- Sludge / Dewatering Flow
- pH Check Point

SYSTEM NOTES

- Two independent treatment trains operate in parallel.
- Initial pH check occurs before NaOH injection. Final pH check occurs after static mixer.
- Off-spec material is automatically returned to the 6,300 gallon split tanks for re-treatment.
- All pumps are submersible unless noted otherwise.
- All tanks equipped with high level alarms.
- Flows and chemical feed rates are controlled and adjusted based on pH response and flow rate.

EQUIPMENT SUMMARY

ITEM	DESCRIPTION
Source Tank	Existing tank with 10 HP submersible pump
Equalization/Split Tank	6,300 gallon poly cube (divided) - (2) 3 HP submersible pumps
Treatment Trailer	Dual independent trains with pH monitoring, NaOH injection, and static mixers
NaOH Supply Tank	5,050 gallon poly tank (25% NaOH)
First Frac Tank	18,000 gallon tank with 3" submersible pump and centrifugal pump to 20 yard roll-off bin
Second Frac Tank	18,000 gallon load out tank
Centrifugal Pump (Load Out)	Transfers treated liquor from Second Frac Tank to trucks
Sludge Dewatering	20 yard roll-off bin for sludge/solids management
Truck Loading	Truck filled from second frac tank via centrifugal pump