

APPLICATION TO THE TCEQ FOR NEW PERMIT FOR A MUNICIPAL SOLID WASTE FACILITY

Part III – Site Development Plan - MSW Permit No. 2430

Vexara Pharmaceuticals

3300 Bingle Road

Houston, TX 77055

Prepared For:

Vexara Pharmaceuticals, LLC

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Houston, TX 77027

1-281-830-0284

February 1, 2026

Revision Date: February 27, 2026

Prepared By:

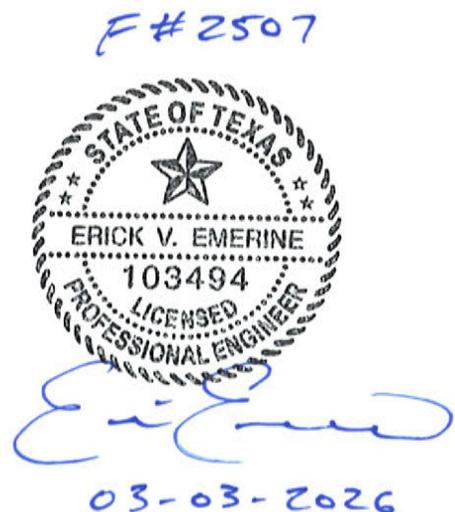


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F#2507



List of Supporting Documents

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3.0 Site Plan

This is a grease/grit trap, lint and septic waste processing facility. The proposed facility is an enclosed 7800 sq ft building with roll-up doors. Trucks full of grease, lint, grit and human waste from septic tanks and municipal sewage water will be offloaded by hose at a receiving station inside the building and surrounded by a curb to contain small spills. The liquid and biosolid waste will be processed for brown grease removal to recycle, and the remaining liquid and biosolid waste will be pumped through a series of storage tanks to a mixing tank where the waste will be mixed with lime for pH adjustment and then pumped into one of two dewatering boxes where a polymer will be added that works to separate the liquid from the solids. The liquid will drain off into a sump pump pit and be pumped to a holding tank for inspection and necessary testing and then drain into the City of Houston sanitary sewer system via underground lines. The biosolids will remain in the filter box container until it is full of the separated solids and then it will be offloaded into a 40-cubic yard rollbox and transported to an approved domestic solid waste disposal site landfill or composting site in the Houston area. Based on 50,000 gallons per day with an expected percentage of waste stream solids at 0.5%, it is anticipated that on average it may take up to 32 days to fill a dewatering box of solids prior to disposal. Operating at maximum capability of 150,000 gallons per day it would be projected that it would take 21 days to fill two dewater boxes of solids prior to disposal.

The areas surrounding the facility are asphalt and concrete. The facility will be designed to comply with the requirements of 30 TAC 330.303(a)-(b). A proposed facility layout is included in the Supporting Documents -Figure 2.1.3.

3.1 Facility Access

The facility will be in operation Monday-Friday, 4am-6pm and Saturday, 4am-noon. Access to the facility will be limited to employees and authorized visitors. Unauthorized visitors will be allowed when employees are present. A 4' x 4' sign with 3" letters will be placed at the entrance of the facility displaying the Site Name, Permittee Name, Type of Site, Hours of Operation, and Emergency Contact Information.

3.2 Waste Movement

Liquid waste (grease from restaurants, grit from commercial car washes, septage) is delivered to the facility by truck. The load/material will be inspected to make sure no prohibited or unauthorized waste is delivered to the facility. The wastewater will be offloaded from the truck via hose into a receiving station with an automated trash separating screen. The large trash will be separated out and put into a 10 cubic yard dumpster to be hauled to the landfill. The liquid waste with suspended solids will then go through a 4" trash pump into a 20,000-gallon separation tank (10' diameter x 33' long)

where the grease floats to the top. The grease will be pumped into a pick heater and cyclone tank by a 25 gpm pump to separate out the brown grease. The brown grease will be stored in an oil storage tank so it can be recycled. The separated waste liquids and bio-solids that fall out of the bottom of the cyclone will be discharged through the reject port where under residual pressure will flow back into the receiving station for re-processing. The remaining separated wastewater and biosolids will be pumped through a series of 2 storage tanks until it reaches the mixing tank where lime will be added to the mixture. This mixture will be pumped into the dewatering boxes. As it is being pumped over, the polymer will be injected into the solution to start the separation process. The solids flocculate and separate from the liquids. The liquid will drain through openings in the wall of the box and collect in a sump pump pit where it will be pumped to a holding tank to be visual inspected, sampled as needed and pumped to the City of Houston sewer treatment system via underground lines. The facility will follow the requirements set forth in the City of Houston permit. Once a dewatering box is full of waste solids, the solids will be offloaded into a 40-cubic yard rollbox and hauled to an approved domestic solid waste disposal site landfill or composting facility.

The dewatering process is complete after the solids drain for several hours. The dewatering process can produce solid material that will pass the Paint Filter Liquid Test (EPA Method 9095B) for landfill acceptance.

A process flow chart (Figure 3.2.1) for the proposed facility is in the supporting documents.

3.3 Process Wastes

The products of this process include treated water and dewatered solids.

- **Brown grease:** Brown grease is composed of fats, oils and grease (FOG). It can clog sewer lines and interfere with septic systems and sewage treatment operations. Recognition of its value for production of fertilizer, biodiesel and other products, as well as stringent EPA regulations, are driving a trend of brown grease recycling.
- **Water:** The wastewater will be pumped into a holding tank for visual inspection to ensure the process is functioning as designed before entering a sampling station for city inspection and on to the city of Houston wastewater treatment plant.
- **Solids:** Dewatered solids in the dewatering boxes will be transferred from the facility by a roll-off truck. It will be delivered to an approved disposal site or composting site in the Houston area.

3.4 Odor Control and Ventilation

The facility is completely enclosed to prevent nuisance odors from leaving the property by minimizing the contact between unprocessed waste and air. All liquid and solid waste will be stored in odor retaining containers and vessels. The storage tanks are enclosed.

Liquid from the storage tanks will be pumped to the dewatering box. Four of the five pumps will be capable of 400 gpm at 30 psi. The pick heater pump will require 25 gpm at 40 psi. The number of pumps for the project will be five. Typically, solids will not remain in the boxes long enough to create an odor problem. Tarps will be used to cover the boxes as needed to limit the odors. The boxes will be stored inside the enclosed building.

The enclosed facility will have a large exhaust fan on the south end that would expel the odorous air higher into the atmosphere for odor abatement. The empty containers will be washed down with hot water and degreaser.

The facility will not be in operation on Sunday.

3.5 Sanitation

It is anticipated that all storage tanks, pumps and other equipment within the process will require routine inspection and maintenance to ensure proper functioning and removal of solids build up within all the storage tanks. The equipment will be regularly inspected and cleaned to minimize solid loading. All working surfaces that are in contact with waste material will be washed at least 2-3 times per week. All solids removed from the storage tanks will be processed through the dewatering boxes and all wash water for cleaning will make its way to sump pump pit. Washing will consist of power wash equipment (See Equipment Specifications). Wash water will be conveyed to the sump pump pit inside the building. The sump pump will be the primary means to remove wash water. The building will have a curb inside the entire building walls to ensure full containment of wash water waste as it makes its way to sump pump pit and goes to the city sewer system via underground lines located on the west side of the building. The curb inside the building will provide full containment of the operation/process. The outside slope of the building is sloped away to prevent run-on of stormwater into the building.

3.6 Water Pollution Control

Water pollution from the dewatering process is minimized. The building will have 20 ft walls with all the equipment being covered completely or curbed. Wastewater effluent from the dewatering process will be discharged into the sewer line via underground lines on the west of the property in accordance with the City of Houston Sanitary Sewer Department requirements. Based on the design, the waste management unit can sufficiently control and contain a worst-case scenario spill or release from the unit. The spill or release will be contained inside the building or curb. There will be no contaminated groundwater or surface water.

3.7 Drinking Water Protection

All areas of the facility are enclosed and are on asphalt or concrete surfaces. It is designed to contain liquids in the event of a spill.

3.8 Endangered Species

See Part 2.9 of this application. The proposed facility is in a building on a concrete slab surrounded by asphalt and concrete. There are no critical habitats within the project area.

3.9 Runoff Management, Site Drainage and Drainage Structures

The facility is in an enclosed 7,800 square foot building with 20' walls and surrounded by a curb. If a release of waste were to occur, it would be contained inside the building or curb. The roll-offs will have screens to filter out the trash and debris and no trucks will be allowed to uncap their discharge ports outside of the receiving station area. The surrounding area is sloped to drain away from the building.

3.10 Discharge of Wastes

If a spill were to occur, it would be contained inside the building or curb. A portable vacuum trailer will be kept inside to clean up the spill and return the waste to the receiving station.

Wastewater effluent from the dewatering process is discharged into the sewer line at the west of the property boundary in accordance with the City of Houston Sanitary Sewer Department requirements.

3.11 Storage Requirements

Liquid waste (grease from restaurants, grit from commercial car washes, septage) is delivered to the facility by truck. The load/material will be inspected to make sure no prohibited or unauthorized waste is delivered to the facility. The wastewater will be offloaded from the truck via hose into a receiving station with an automated trash separating screen. The large trash will be separated out and put into a 10 cubic yard dumpster to be hauled to the landfill. The liquid waste with suspended solids will then go through a 4" trash pump into a 20,000-gallon separation tank (10' diameter x 33' long) where the grease floats to the top. The grease will be pumped into a pick heater and cyclone tank by a 25 gpm pump to separate out the brown grease. The brown grease will be stored in an oil storage tank (7,000 gallons) so it can be recycled. The separated

waste liquids and bio-solids that fall out of the bottom of the cyclone will be discharged through the reject port where under residual pressure will flow back into the receiving station for re-processing. The remaining separated wastewater and biosolids will be pumped through a series of 2 storage tanks (20,000 gallons each) until it reaches the mixing tank (21,000 gallons) where lime will be added to the mixture. This mixture will be pumped into one of two dewatering boxes with tarps (40 cubic yards each or 8,078 gallon capacity), *providing* adequate design capacity to process waste without delays. As it is being pumped over, the polymer will be injected into the solution to start the separation process. The solids flocculate and separate from the liquids. The liquid will drain through openings in the wall of the box and collect in a sump pump pit where it will be pumped to a holding tank (6,000 gallons) to be visual inspected, sampled as needed and pumped to the City of Houston sewer treatment system via underground lines. The facility will follow the requirements set forth in the City of Houston permit. Once a dewatering box is full of waste solids, the solids will be offloaded into a 40-cubic yard rollbox and hauled to an approved domestic solid waste disposal site landfill or composting facility within 7 business days where it will be tarped and stored inside the enclosed facility. The maximum allowable time to store unprocessed waste is 72 hours.

All solids sent to the landfill will pass the Paint Filter Liquids Test (EPA Method 9095B). Any testing required by the landfill for classification of waste will be followed and records of all analyses will be retained on-site for a minimum of three years.

3.12 Noise Pollution and Screening

The sources of noise will include trucks entering and leaving the property as well as small engines that operate the pumps or other equipment. Truck traffic will be minor. Proper operation and maintenance of pumps and machinery with help to minimize noise pollution. The facility is enclosed and curbed. The hours of operation are Monday-Friday 4am-6pm, Saturday 4am-noon.

3.13 Employee Sanitation Facilities

A restroom facility is provided for the use of employees and visitors in the designated office area.

3.14 Operating Life of the Facility

There is no limit to the operating life of this facility since site capacity is not consumed during operations like at a landfill.

3.15 Facility Closure Plan

Domestic Liquid Waste Processing Facility

Future Closure Plan and Cost Estimate

Vexara Pharmaceuticals, LLC – 3300 Bingle Rd., Houston TX 77055

Introduction

This closure plan and cost estimate has been provided for the future closure of a pumped domestic septic tank waste, grease and grit processing facility for Vexara Pharmaceuticals LLC in Houston, Texas. This facility consists of an enclosed 8,000 sq-ft building with roll-up doors where contract vacuum trucks full of grease, grit and septic waste from households are offloaded into a receiving station being a screw press facility inside the building contained by a curb for spills. The screw press removes large non-biodegradable particulate/trash which is conveyed to a 5 cubic yard trash receptacle. The domestic waste liquids and solids are further processed by a series of process equipment that includes grease removal, pH adjustment, polymer addition for solids removal and dewatering to separate biosolids from the effluent wastewater. The dewatering units are configured with an arrangement of screens that allows effluent wastewater to escape into the designated collection space, then drain through drain ports where it is collected in a sump pit and pumped to a storage tank which gravity drains via underground sewer service piping to the City of Houston's wastewater sewer system. The resulting domestic waste solids are stored until the filter box container is full of separated solids and then it is transported to an approved domestic solid waste disposal site landfill or composting facility. The removed grease is stored in a tank inside the building and regularly picked up and transported to a recycling facility. This future closure plan and cost estimate was developed based on the provisions contained in Texas Administrative Code, Chapter 330, Subchapters K and L. For reference, the attached Vicinity and Location Map shows the location of the facility for Vexara Pharmaceuticals LLC facility. Generally, the facility exists as an enclosed 8,000 sq-ft metal building housing three 20,000 gal storage tanks (10' dia x 33' long), one 21,000 gal frac tank (46' x 10' x 8.5'), one 6,000 gal poly storage tank, one 7,000 gal poly storage tank, two 40 cubic yard (8,079 gal) dewatering boxes, one 40 cubic yard rolloff bin, one 10 cubic yard dumpster, piping, pumps, valves, screw press facility, steam generating equipment, cyclone, polymer injection equipment, curbs, etc.

The goal of this future closure plan and cost estimate is to ensure the proper decommissioning of the domestic liquid waste processing facility and ensure the State

required financial security to be filed by Vexara Pharmaceuticals LLC in an amount that is equal to or greater than the maximum amount necessary to close the facility at any time during the life of the permit term in accordance with all applicable State laws.

General Information

- 1) Facility Name & Address: Vexara Pharmaceuticals, LLC
3300 Bingle Road
Houston, TX 77055
- 2) Authorized Contact: Richard Seltzer, Ph: 281-830-0284
1800 West Loop South Suite 1110
Houston, TX 77027
Email: [REDACTED]

Closure Plan and Cost Estimate Guidelines

This closure plan provides for the future closure of a pumped domestic septic tank waste, grease and grit processing facility for Vexara Pharmaceuticals, LLC in Houston, Texas. Closure will conform to following provisions also contained in Texas Administrative Code, Chapter 330, Subchapters K and L.

- 1) The operator will begin closure no later than 30 days after final receipt of waste or no later than one year if the unit has remaining capacity and additional waste may be received.
- 2) Closure activities to be completed within 180 days of initiation.
- 3) Suitable barriers shall be installed at all access points to adequately prevent the unauthorized dumping of solid waste at the closed facility.
- 4) At least one closure sign will be posted at every point of access and notify all persons who utilize the facility of the date of closure and the prohibition against further receipt of waste materials.
- 5) Submit a closure plan for Storage and Processing units to remove all waste, waste residues, and any recovered materials. Units shall be dismantled and removed off-site or decontaminated.
- 6) Provide plans for the evacuation of all material on-site to an authorized facility and the disinfecting of all contaminated water handling units, tipping areas, processing and post-processing areas (as applicable).

- 7) If there is evidence of a release, the TCEQ Executive Director may require an investigation, assessment, and or corrective action.
- 8) Acknowledge that following receipt of closure documents and the inspection report by the TCEQ region, the Executive Director may acknowledge termination of operation & closure & deem the facility properly closed.
- 9) A notice of closure shall be published in the newspaper of largest circulation 90 days prior to the initiation of a final facility closure. The notice shall provide the name, address, and physical location of the facility; the TCEQ authorization number; and the last date of intended receipt of waste.
- 10) The notice of closure shall be provided to the TCEQ Executive Director 90 days prior to the initiation of a final facility closure and that the owner or operator will also make available an adequate number of copies of the approved final closure and post-closure plans (if applicable) for public access and review.
- 11) An Affidavit to the Public shall be submitted to the TCEQ Executive Director by registered mail, if waste will remain onsite and that the Owner or Operator will also record a certified notation on the deed to the facility property that the land has been used as a landfill and submit a certified copy of the modified deed to the TCEQ Executive Director.
- 12) Certification, signed by a P.E., shall be provided within 10 days of final closure activities, verifying that final facility closure has been completed in accordance with the approved closure plan and shall include all applicable documentation necessary for certification.
- 13) The owner or operator may request permission from the TCEQ Executive Director to remove the notation from the deed if all wastes are removed from the facility.
- 14) Submit cost estimates for closure & post-closure. Existing facilities must submit a copy of the financial assurance documentation. New facilities must submit financial assurance within 60 days prior to receipt of waste.
- 15) The closure cost estimate shall equal the costs of closure of the facility, including disposition of the maximum inventories of all waste.
- 16) The closure cost estimate shall be based on the costs of hiring a third party that is not affiliated with the owner or operator; and is based on a per cubic yard and/or short ton measure for collection and disposition costs.
- 17) Provide for the closure cost estimate & financial assurance to be increased if conditions change which increase the maximum cost of closure at any time during the active life of the facility.
- 18) A reduction in the closure cost estimate and the amount of financial assurance may be approved if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the facility.
- 19) Provide for the maintenance of financial assurance until closure is approved by the TCEQ Executive Director.
- 20) Maintain documentation that the facility is in compliance with the conditions of the permit.
- 21) Establish criteria for delineating between waste material that will be hauled to active permitted waste disposal facilities versus that which is to remain.

- 22) None of the operator's equipment or facilities that may have otherwise been available at the time of the closure (e.g. treatment facilities, trucks, bulldozers, employees, etc.) shall be available to assist in the closure.
- 23) The facility shall be closed in accordance with the permit. Disposal of wastes should assume that storage tanks/processing units contain maximum permitting holding amounts of waste material.
- 24) Provide a list of the unit costs for all material, equipment, services, and labor needed to close the facility. The list must be specific and must state the source or basis for the specific unit cost.
- 25) Show the total quantity of each unit cost item and how the total quantity was determined (i.e. cubic yards of material divided by size of load equals total number of loads, etc.)
- 26) Show all calculations used to arrive at total maximum closure costs.
- 27) Include supporting maps and illustrations, such as: before and after topographical maps, facility plot plans and photographs that illustrate the current condition of the facility, and/or anticipated condition of the facility upon reaching maximum permit conditions at closure. All structures associated with the facility (including but not limited to all buildings, storage tanks, processing units, pipelines, pits, etc.) that are currently on site or will be upon reaching maximum permitted capacity. For instance, the estimate should assume all permitted but undeveloped pit capacity, treatment cells, or any other structures and/or equipment that would be in place under permitted operations whether such structures and equipment are in place at the time of the estimate or not. All such structures and the proposed method of demolition, disposal, and/or removal must be clearly identified in the closure cost estimate.

Attachments

Future Closure Cost Estimate
Vicinity Map
Location Map
Processing Facility Layout
Letter of Credit from Permittee's Financial Institution

Closure Cost Estimate for Pumped Domestic Septic Tank Waste, Grease and Grit Processing Facility
 Vexara Pharmaceuticals LLC
 3300 Bingle Road, Houston-TX, 77055

	QTY	Unit	Unit Price	Amount
Closure Cost				
1	94,000	Gal	\$0.20	\$18,800
2	125	CY	\$25	\$3,125
3	7,000	Gal	\$0.25	\$1,750
4	2	CY	\$100	\$200
5	1	LS	\$10,000	\$10,000
6	1	LS	\$5,000	\$5,000
Total				\$38,875

Notes:

1. Domestic liquid waste to be taken to the Gulf Coast Waste Authority (Ph: 713-472-5507) located at 1002 N Richey St, Pasadena, TX 77506.
2. Domestic grease trap waste will be taken to Southwaste Disposal (Ph: 713-561-5995) located at 3737 Walnut Bend Ln, Houston, TX 77042.
3. Non-Domestic solid waste to be taken to the Fairbanks Landfill Facility (Ph: 713-937-1332) located at 8205 Fairbanks North Houston Rd, Houston, TX 77064.
4. Costs above includes transportation and disposal of all tanks and associated equipment.

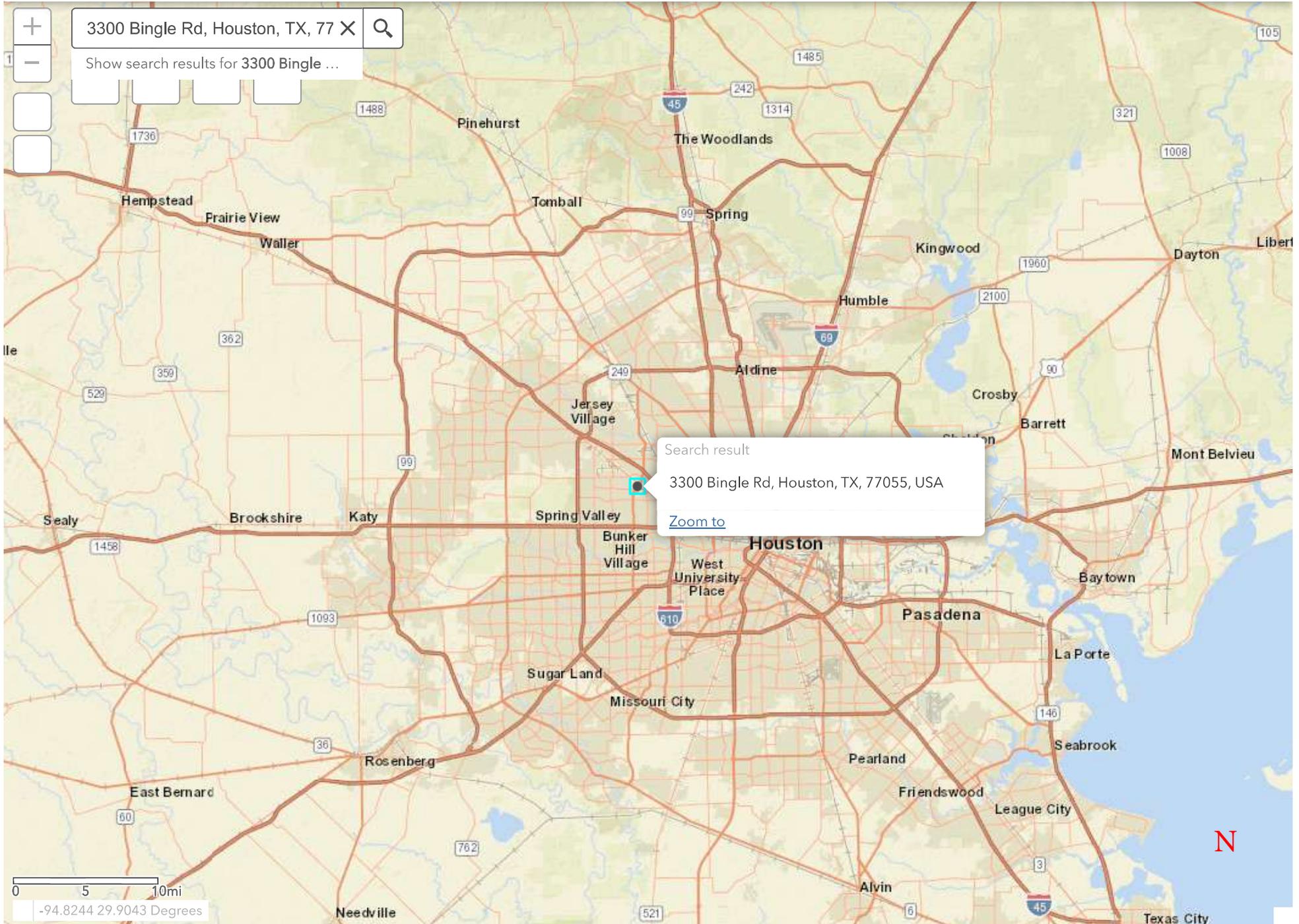
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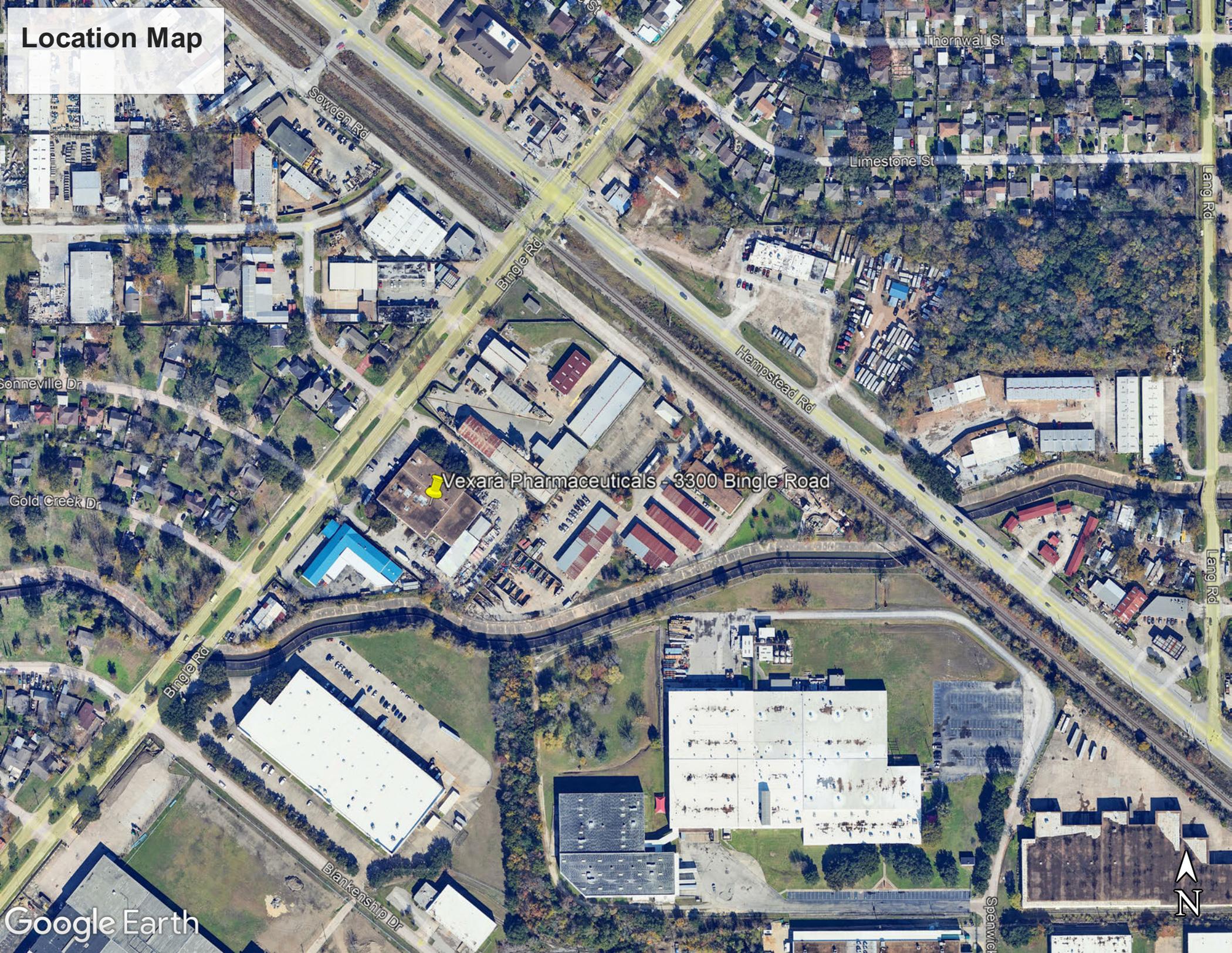
Submitted By:
 Erick Emerine, PE
 Enviro-Ag Engineering, Inc.
 3404 Airway Blvd
 Amarillo, TX 79118
 Ph: 806-353-6123

Erick Emerine
 02-05-2026

Vicinity Map



Location Map

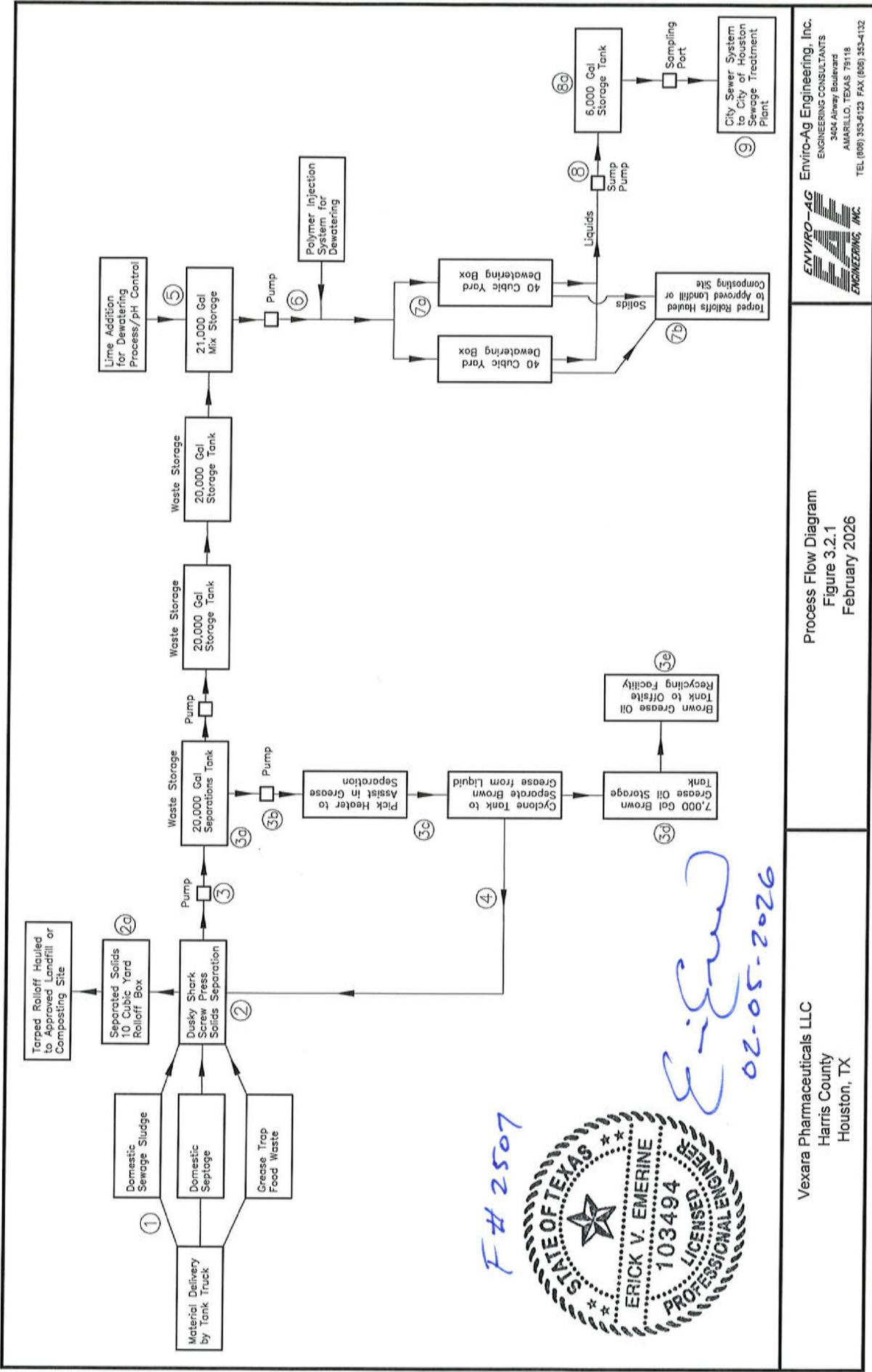


Vexara Pharmaceuticals - 3300 Bingle Road



Supporting Documents

3.2.1 Process Flow Chart



F# 2507



E. Emerine
02-05-2026

Vexara Pharmaceuticals LLC
Harris County
Houston, TX

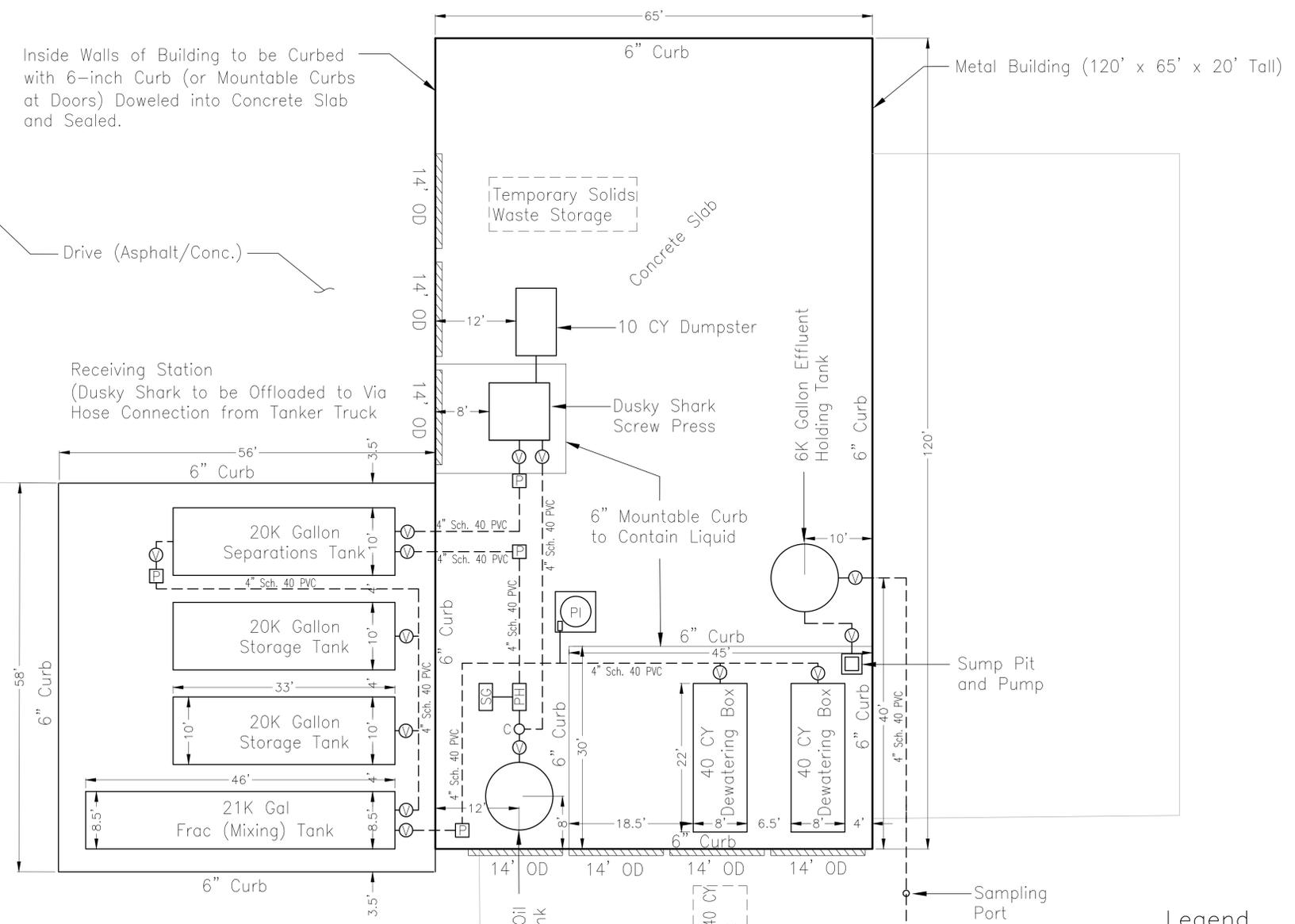
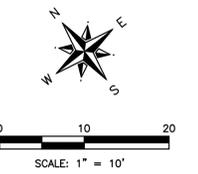
Process Flow Diagram
Figure 3.2.1
February 2026

ENVIRO-AG ENGINEERING, INC.
ENGINEERING CONSULTANTS
3404 Albany Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

ENVIRO-AG ENGINEERING, Inc.
ENGINEERING CONSULTANTS
3404 Albany Boulevard
AMARILLO, TEXAS 79118
TEL (806) 353-6123 FAX (806) 353-4132

Construction Drawings

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	INITIAL RELEASE		



Legend

	Pump
	Valve
	Cyclone
	Pick Heater
	Steam Generator
	Polymer Injection Unit
	Overhead Door

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PROJECT: Vexara Pharmaceuticals LLC
 3300 Bingle Rd
 Houston, TX (Harris County)



ENVIRO-AG ENGINEERING, INC.
 ENGINEERING CONSULTANTS

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 Amarillo, Texas 79118
 TEL (806) 353-6123
 FAX (806) 353-4132

SHEET DESCRIPTION: Layout and Dimension Plan

SCALE: As Shown
 PROFILE SCALE:
 HORIZONTAL
 VERTICAL

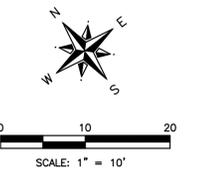
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02/05/2026

Vexara Pharmaceuticals LLC
 Layout and Dimension Plan

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	INITIAL RELEASE		

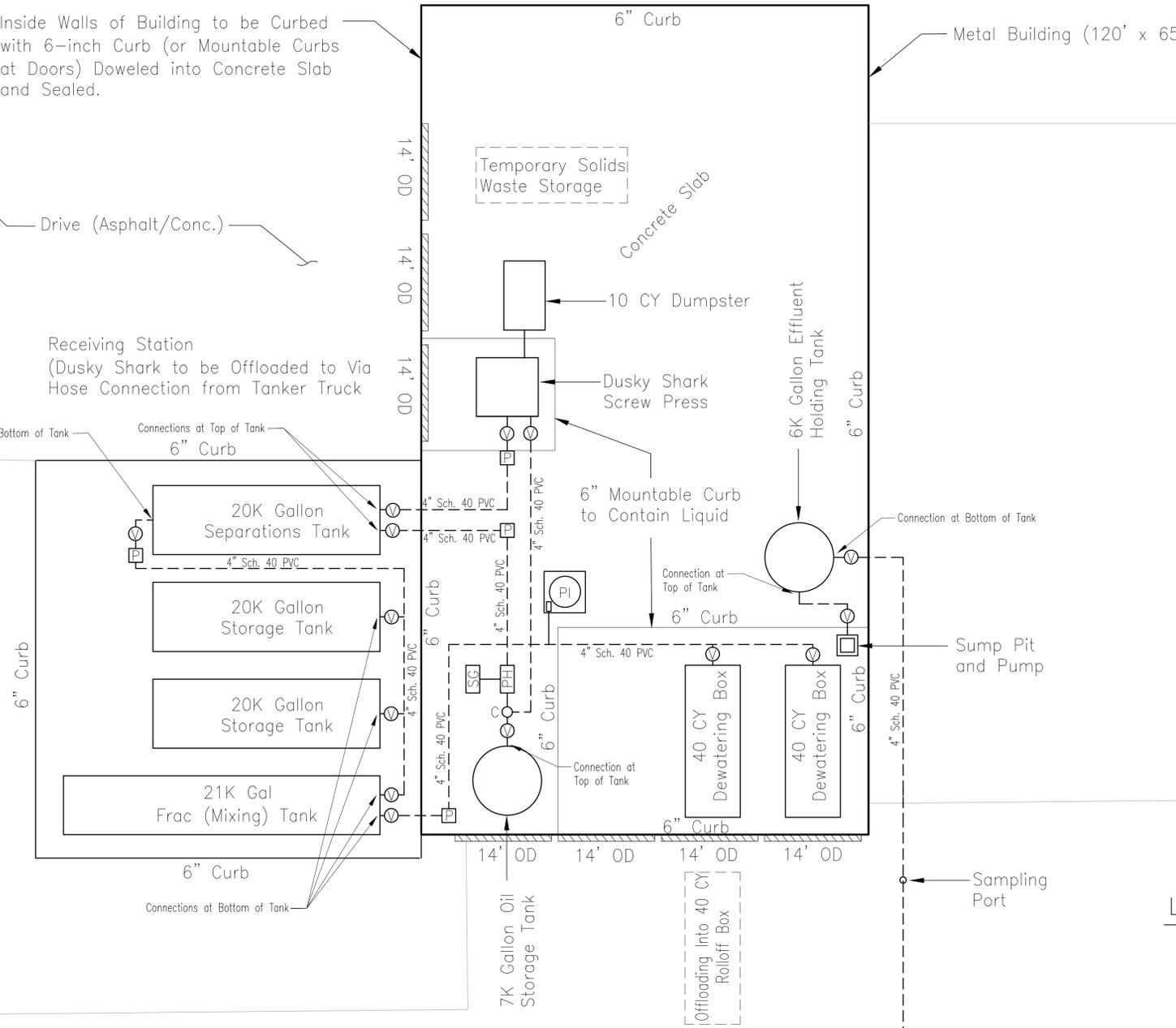


Inside Walls of Building to be Curbed with 6-inch Curb (or Mountable Curbs at Doors) Doweled into Concrete Slab and Sealed.

Drive (Asphalt/Conc.)

Metal Building (120' x 65' x 20' Tall)

Receiving Station
(Dusky Shark to be Offloaded to Via Hose Connection from Tanker Truck)



Notes:

- All pressure piping for this project shall be minimum 4-inch Schedule 40 PVC. All PVC joints and couplings shall be solvent welded and properly thrust restrained. If steel is selected, joints and couplings shall be flanged, threaded and/or mechanical joint type.
- All pumps (centrifugal and submersible) shall be capable of 200 gpm (maximum 400 gpm) at minimum 70' total dynamic head. All pumps shall be equipped with capability to throttle (decrease) flow rate.
- Valves shall ball, gate or butterfly type.
- All plumbing construction shall be leak and pressure tested up to 80 psi.
- Concrete construction work shall be watertight including all joints. Concrete shall be minimum 4,000 psi structural grade. Existing joints and/or cracks in slab shall be cleaned and filled with an appropriate high performance elastomeric joint sealant. Recommended product, Sikaflex-1a by Sika.
- Entire concrete slab surface within operation area shall be cleaned and coated with an industrial grade bituminous epoxy by Carboline, product Bitumastic 300M per manufacturer's recommendations.
- Inside of operation area along inside wall of building to be curbed with 6-inch reinforced concrete doweled into existing slab and sealed. At overhead doors, mountable curb to be installed to provide access.
- Receiving station shall be a Dusky Shark septage screw press unit.
- Heat injection and steam generation shall be a direct steam injection (DSI) BX Series by Pick Heater.
- Cyclone oil/water separator shall be a 10-inch diameter by 2-ft tall cyclone by Park Process (or equivalent) and capable of performance at separation duty at 25 gpm at 40 psi.
- Polymer injection system shall be by Aqua-Zyme or equivalent.
- Metal storage tanks shall be of welded construction and coated on inside and outside to be protective of metal and resistant to corrosion.
- 40 cubic yard dewatering boxes shall be by Flo Trend.
- Frac tanks shall be industry standard 500 barrel horizontal tanks.
- Power and controls are not part of these drawings and shall be performed by the MEP engineer or specialty electrical/control contractor.
- Poly (HDPE) storage tanks shall be high density polyethylene material and suitable for oils and domestic wastewater liquids.
- Sampling port shall be placed over sewer service connection for City inspection and sampling. Sampling port shall be Schier Sewer Viewer or equivalent or as directed by City.
- All development work pertaining to City of Houston site planning ordinances are not part of these drawings. Site planning/property development work shall conform to the City of Houston development standards, processes and ordinances.

Legend

- Pump
- Valve
- Cyclone
- Pick Heater
- Steam Generator
- Polymer Injection Unit
- Overhead Door

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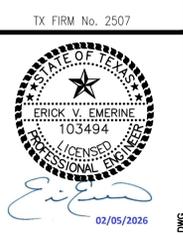
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SHEET DESCRIPTION: Construction Plan

SCALE: As Shown
PROFILE SCALE:
HORIZONTAL
VERTICAL

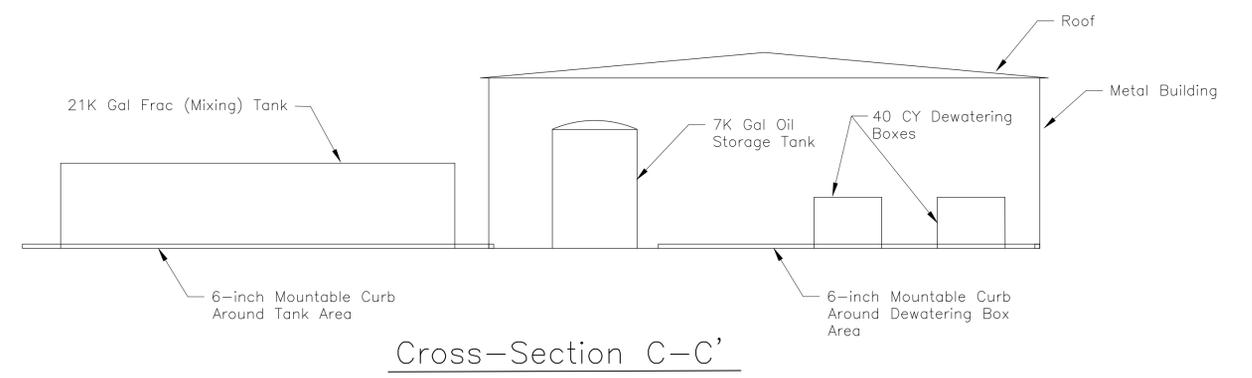
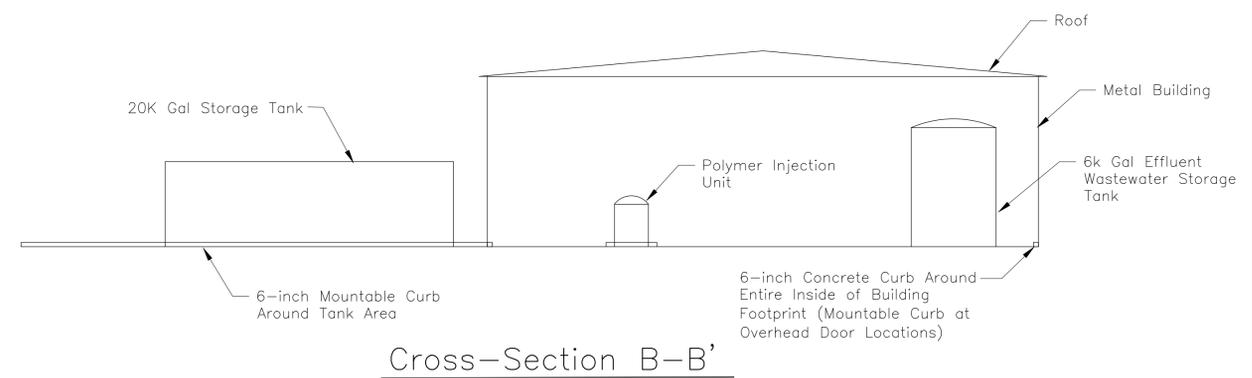
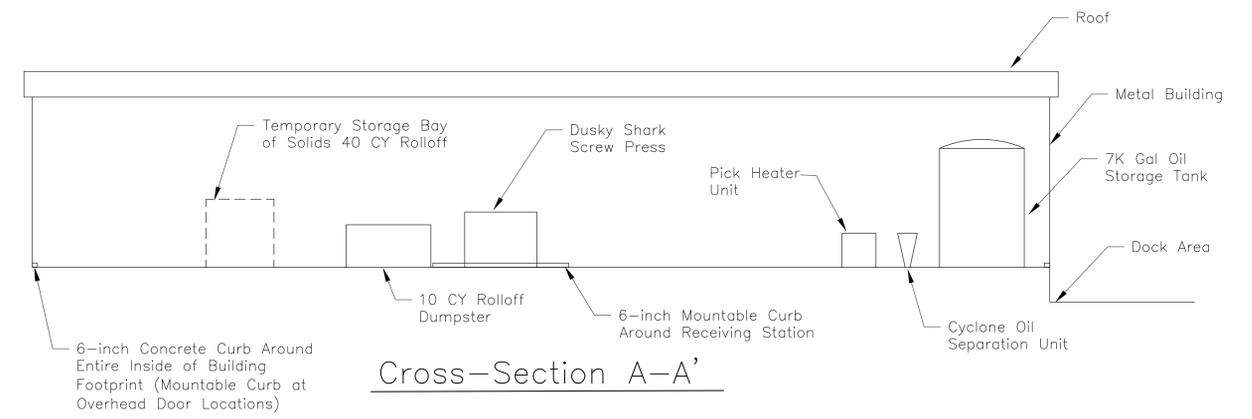
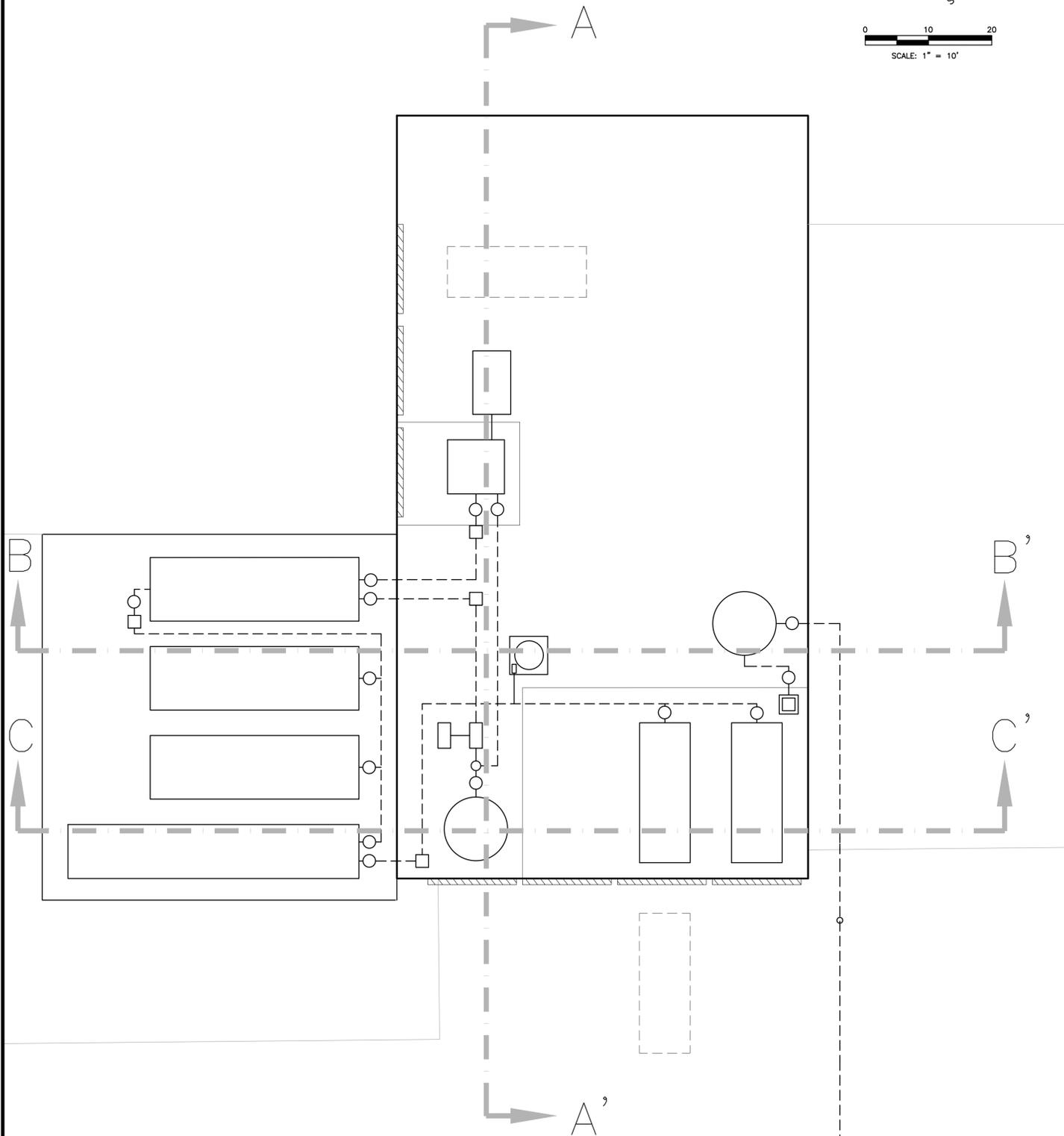
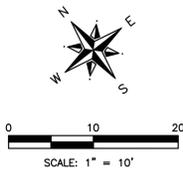
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REV -
DWG. SIZE: D SHEET 2 OF 3



Vexara Pharmaceuticals LLC
Construction Plan

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
-	-	INITIAL RELEASE		



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PROJECT: Vexara Pharmaceuticals LLC
3300 Bingle Rd
Houston, TX (Harris County)



ENVIRO-AG ENGINEERING, INC.
ENGINEERING CONSULTANTS

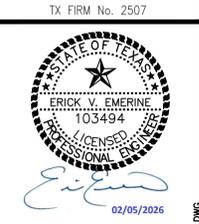
3404 Airway Blvd.
Amarillo, Texas 79118
TEL (806) 353-6123
FAX (806) 353-4132

SHEET DESCRIPTION: Cross-Sections

SCALE: As Shown
PROFILE SCALE:
HORIZONTAL
VERTICAL

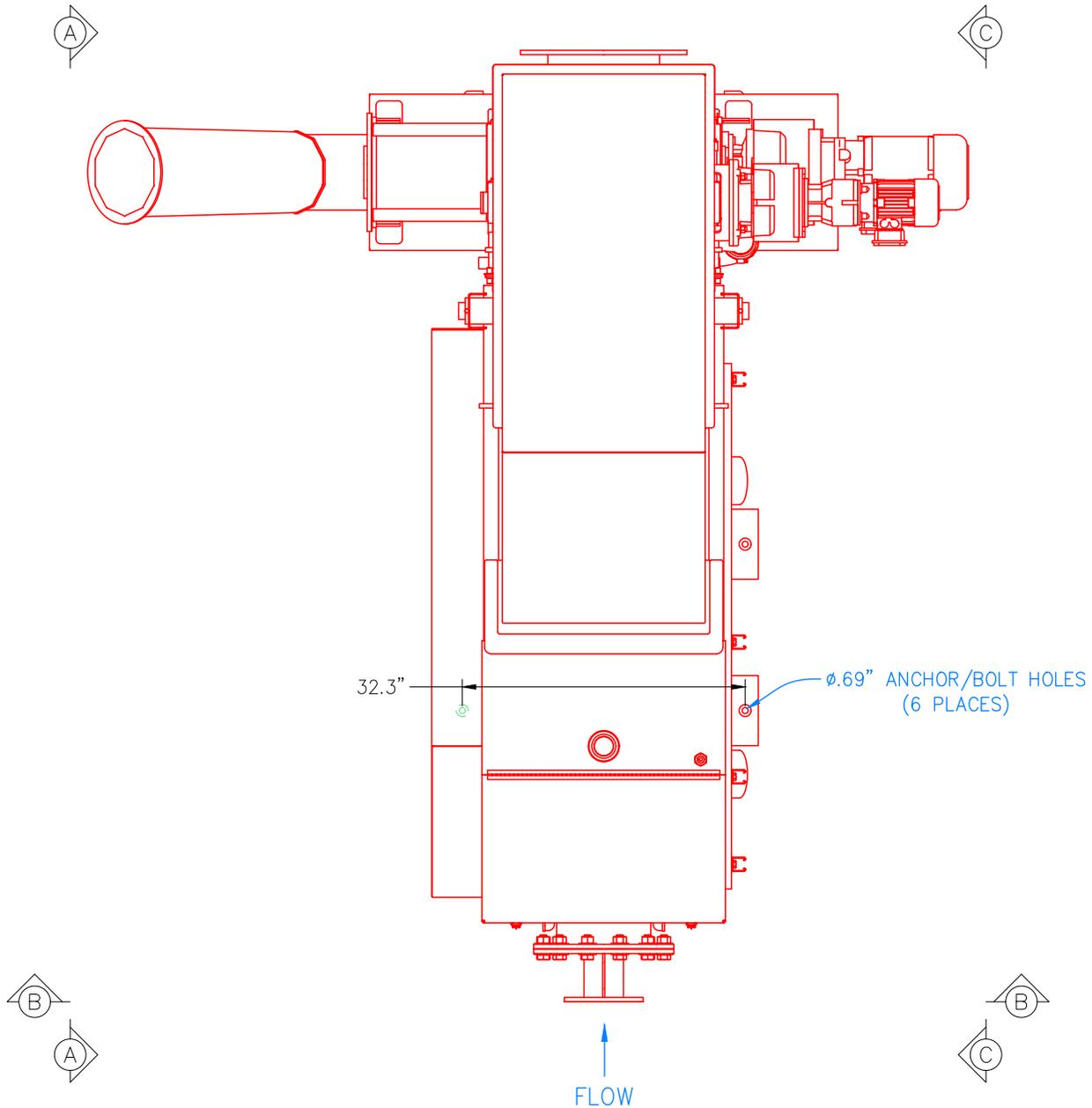
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DWG. SIZE: D SHEET 3 OF 3

REV -



Vexara Pharmaceuticals LLC
Cross-Sections

Equipment Specifications



ESTIMATED EQUIPMENT WEIGHTS

LFS (DRY) : 1,100 LBS
 WCP8H (DRY) : 800 LBS
 SRS (DRY) : 1,200 LBS
 TOTAL: 3,100 LBS

PLAN VIEW

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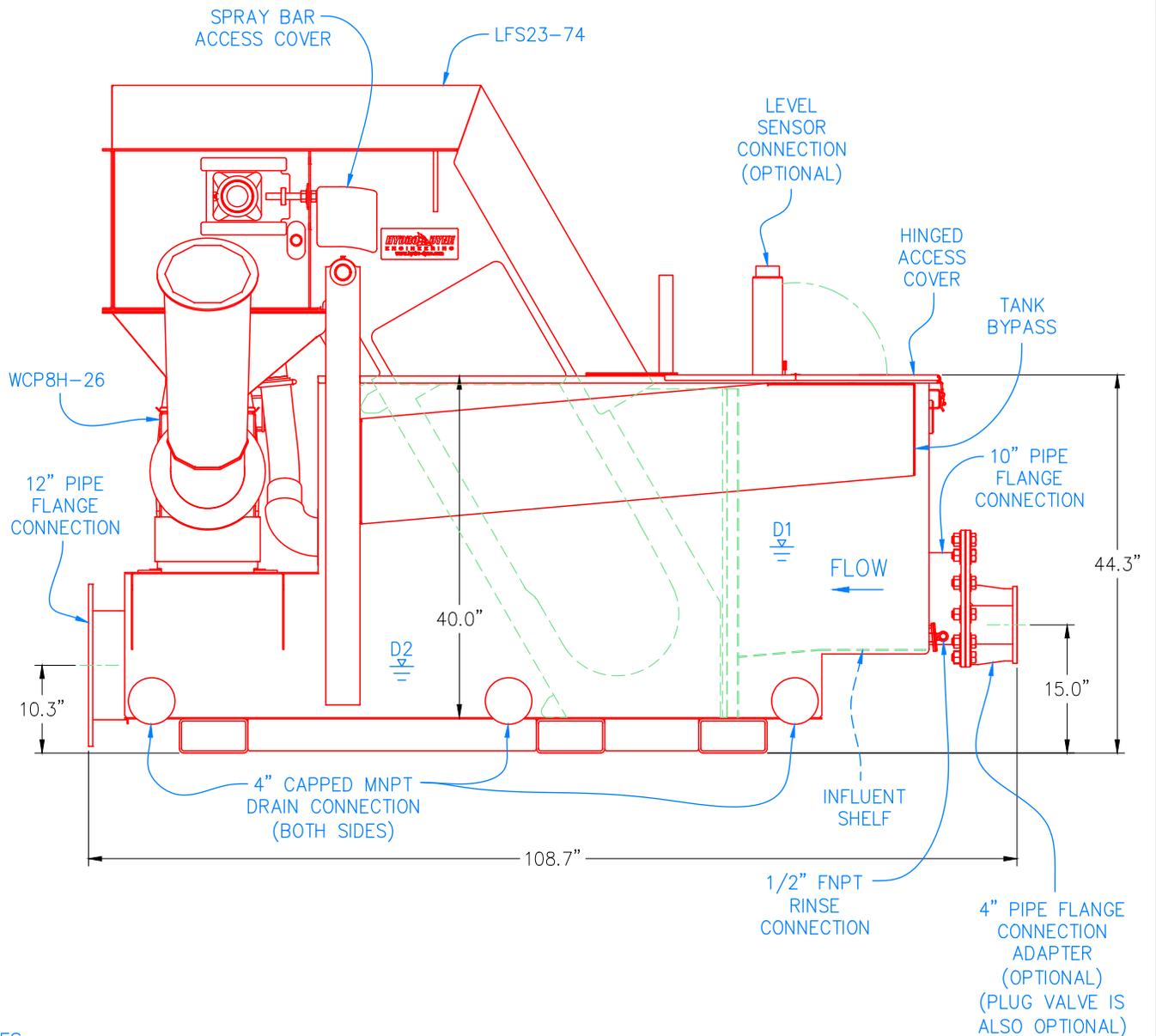
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TOLERANCE	
.X	± .125"
.XX	± .060"
.XXX	± .030"
FRACTIONAL	± 1/4
Z	± 1"



SRS LFS PROPOSAL LAYOUT

FILE #:	SRS-LFS23-74-WCP8H-P1	SHT.:	1/4	REV.:	P1
DRAWN BY/DATE:	J. COONEY - 03/12/2024	SCALE:	5/8"=1'		
CHECKED BY/DATE:	S. STURTEVANT - 03/12/2024	SIZE:	A		



NOTES:

1. UNIT MAY NEED TO BE ELEVATED FOR EFFLUENT TO FULLY DRAIN BY GRAVITY.
2. A DUMPSTER IS TYPICALLY LOCATED AT THE UNIT FOR SOLIDS COLLECTION.
3. SNORKEL MAY BE REMOVED TO FIT THROUGH A DOOR.
4. FORK LOCATIONS FOR LIFT ARE POSITIONED FOR A BALANCED LOAD.

SECTION A-A

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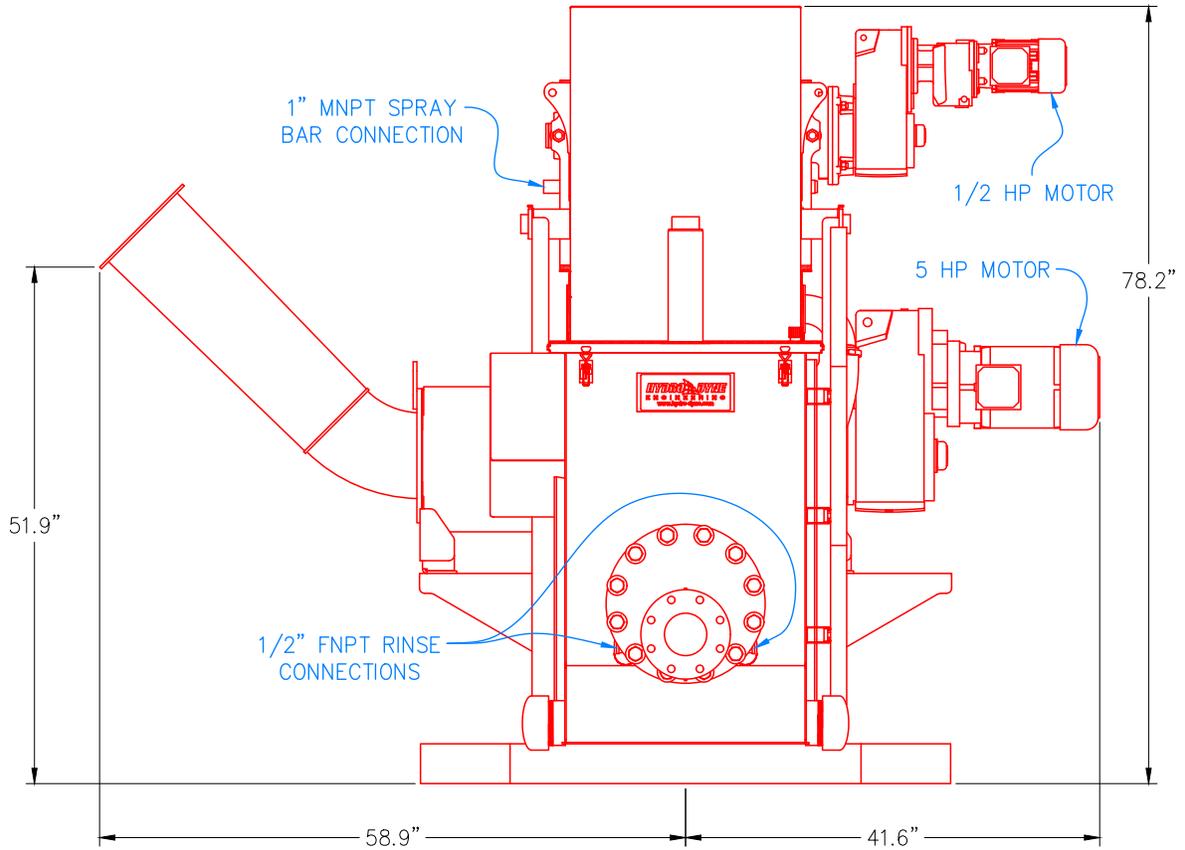
UNLESS NOTED

TOLERANCE
 .X ± .125"
 .XX ± .060"
 .XXX ± .030"
 FRACTIONAL ± 1/4"
 ∠ ± 1°



SRS LFS PROPOSAL LAYOUT

FILE #: SRS-LFS23-74-WCP8H-P1	SHT.: 2/4	REV.: P1
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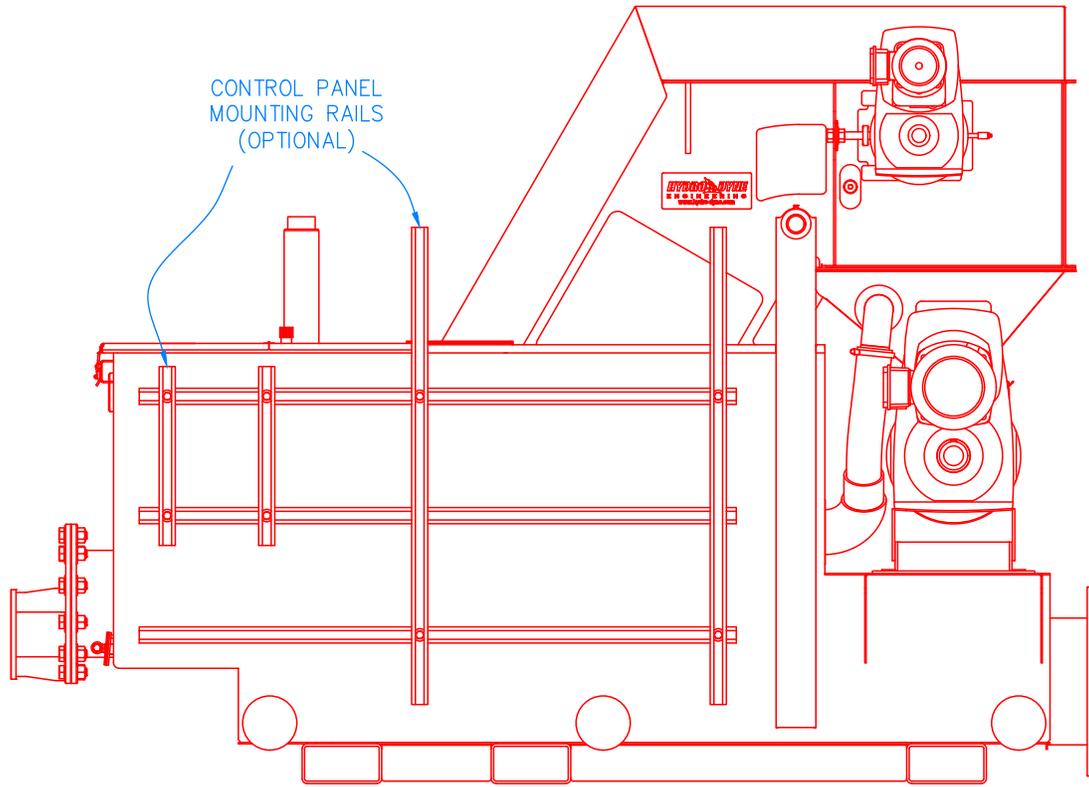
SECTION B-B

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UNLESS NOTED	
TOLERANCE	
.X	± .125"
.XX	± .060"
.XXX	± .030"
FRACTIONAL	± 1/4"
∠	± 1°



SRS LFS PROPOSAL LAYOUT			
FILE #:	SRS-LFS23-74-WCP8H-P1	SHT:	3/4
REV.:	P1	SCALE:	5/8"=1'
DRAWN BY/DATE:	J. COONEY - 03/12/2024	CHECKED BY/DATE:	S. STURTEVANT - 03/12/2024
			SIZE: A



SECTION C-C

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TOLERANCE	
.X	± .125"
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.XXX	± .030"
FRACTIONAL	± 1/4"
∠	± 1°



SRS LFS PROPOSAL LAYOUT

FILE #:	SRS-LFS23-74-WCP8H-P1	SHT.:	4/4	REV.:	P1
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Dusky Shark Septage Receiving Station

SUPERIOR SELF-CONTAINED PROTECTION FOR YOUR PROCESS.

[SPEAK WITH AN EXPERT](https://www.hydro-dyne.com/contact-us/)

Overview

The Dusky Shark is renowned for eating just about anything, including garbage. And like this shark, our Dusky Shark Septage Receiving Station is highly capable of screening nearly any material out of a wastewater flow, including septage and grease trap material that other equipment cannot manage. The Dusky Shark Septage Receiving Station is highly efficient, reliable and easy to install.

[DOWNLOAD BROCHURE](https://www.hydro-dyne.com/wp-content/uploads/2021/04/Hydro-Dyne_Dusky-Shark-Septage-Receiving-Station.pdf)

[PHOTO GALLERY](#)

- Best screen for septage: The only product on the market with a continuous belt design offloaded by water only
- Robust construction: Results in lowest lifecycle cost in the industry, least maintenance required, and lowest parts replacement
- **Screen design** < <https://www.hydro-dyne.com/septage-receiving-system-design-best-practices/> > : Optimal for offloading FOG and rags, with no operator intervention required
- Headquarters, manufacturing, parts and service based entirely in the USA

Through Flow Dusky Shark

- Proven design in hundreds of wastewater applications
- High volume screenings reduction with low maintenance
- Easily captures and removes FOG and rags
- Continuous belt design eliminates potential for jamming and removes large solids
- No submerged sprockets, bearings or bushings



Continuous Belt with Slotted Grid Design: The Optimal Design for Septage Applications

We offer opening options that include stainless steel links and perforated panels as well as UHMWPE perforated panels. Our Dusky Shark Septage Receiving Equipment can accommodate low-to-high flow rates and features opening sizes from 1mm to 75mm.

Laced Links

Stainless Steel Laced Links

Rectangular Openings from 3-9mm

The Laced Link-style grid is ideally suited for water and wastewater applications where fine screening is required with low headlosses.

Advantages

- Able to withstand extremely harsh environments
- Strongest grid available
- Excellent unloading of screenings
- Highest open area percentage/very efficient

Limitations

- Less efficient capture of hair and fibrous material
- Lower screening capture ratio

- Excellent in the screening of FOG and stringy material

Theory of Operation

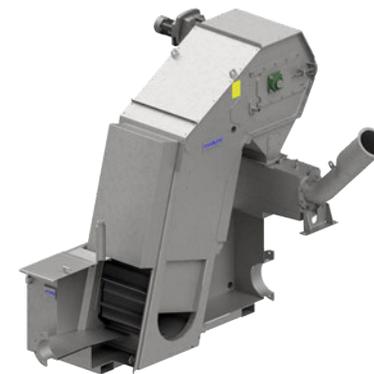
Flow passes through the screen while solids are intercepted and collected by the continuously moving grid. Solids larger than the openings in the screen's grid are collected and form a mat, which is removed undisturbed from the flow resulting in extremely high solids capture and easy unloading.

A low profile bottom shoe and polypropylene brush seals the grid, preventing solids from bypassing under the screen. Flow is constantly presented a clean grid surface as solids are transported to the top of the screen. Screenings are discharged into [screenings handling equipment < https://www.hydro-dyne.com/screenings-handling/ >](https://www.hydro-dyne.com/screenings-handling/).

Minimal friction is achieved through the use of Ultra High Molecular Weight Poly-Ethylene (UHMWPE) and stainless steel wear surfaces. Machined Delrin spacers precisely separate elements, eliminating metal-on-metal wear,

Wide stainless steel tracks ensure years of trouble-free operation. Stainless steel grid elements provide superior strength while reducing area and headlosses. Heavy gauge stainless steel links are not susceptible to breaking and damaging downstream equipment.

Level sensing devices can be connected to variable speed drives to automatically compensate for high solids loading during peak flows or low flow conditions by proportionally speeding or slowing the grid travel speed. This increases the capacity of the equipment when needed and reduces wear, thereby extending the life of the equipment.



Sealing

Our patented sealing system holds extremely tight tolerances between panels and grid to frame, eliminating the bypass of solids and intrusion of abrasive grit. We can ensure a tight tolerance down to 0.5mm in all locations on the screen, even those areas that other screens leave vulnerable.

Grid-to-Frame

- Guide Links create a continuous chain around edge of selected grid
- Formed stainless steel plate creates a labyrinth seal with Guide Link slot
- Fully adjustable and removable for inspection
- Continuously sealed for entire submerged grid path



Panel-to-Panel

- Slotted stainless steel hook links separated by Delrin spacers
- Links support panels every 3" (75mm)
- Panels are closely held against spacers
- No neoprene to erode or fall off
- No hinge to loosen or stretch
- Simple in-situ replacement



Drive

Patented direct drives efficiently power the screen. Stainless steel sprockets support and pull the black UHMWPE Guide Links, resulting in little-to-no friction and long wear. Most importantly, no part of the drive touches the grid. Therefore, a bent grid element will not be compounded into a disabled screen.



<https://www.hydro-dyne.com/contact-us/>

Electric Drive

Resilience to weather, wear, and lack of maintenance make this model an excellent choice for virtually every installation. Through sensible design and material selection this headworks screen is very efficient, utilizing a 0.5 hp (0.38 kW) electric motor. Screens will be wired to suit applications phase and voltage supplies. Chain guards are standard on all electrical models. Explosion proof motors are optional.

Hydraulic Drive

The Great White screen with hydraulic drive incorporates all the benefits of the electric drive with the added capability to be operated submerged. This is a useful option when flooding can occur and reliability is key.

screen

- Grid does not touch drive or unloading mechanism
- Low friction guide links
- Fractional hp and kW requirements
- Only two grease fittings per screen
- Direct drive uses no chains or sprockets

Screenings Discharge

Our highly effective spray wash provides a superior method of cleaning the grid while prohibiting carryover. Spray nozzles efficiently direct pressurized water over the width of the grid to positively remove screenings and prevent carryover. This method of discharge requires a relatively clean source of water to avoid clogging. Conveyance and compaction may be recommended depending on disposal requirements.



critical component to every water or wastewater treatment plant. Hydro-Dyne's turn-key screenings handling solutions are manufactured at the highest level of quality and designed to accept, wash, dewater, compact and/or transport collected screenings. In wastewater applications, screening handling systems are particularly important as they are designed to return organic material to the channel and produce clean, dry and inorganic product that can be properly disposed of in either a container or bagging unit.

Screening Handling At-A-Glance

- Collect and convey screenings for disposal
- Returns organics and wash water to channel
- Screenings meet strict landfill requirements
- Compactors reduce disposal weight and volume
- Bagging units can contain odor
- Agitation can be introduced for more thorough cleaning
- Can be designed as integral and external models
- Shafted and shaftless screw flights



<https://www.hydro-dyne.com/product/whitetip-shark-washing-compactor/>>

<

<https://www.hydro-dyne.com/product/thresher-shark-washing-machine/>>

<

<https://www.hydro-dyne.com/product/spinner-shark-screw-conveyor-and-slucice-systems/>>

[dyne.com/product/whitetip-shark-washing-compactor/](https://www.hydro-dyne.com/product/whitetip-shark-washing-compactor/)>

- Collects, conveys and compacts screenings for disposal
- Dewatering and conditioning
- Returns most organics and wash water to channel

Thresher Shark Washing Machine <
<https://www.hydro-dyne.com/product/thresher-shark-washing-machine/>>

- Extremely thorough washing removes virtually all fecal material and produces "clean" and compacted screenings for disposal
- High capture of inorganic solids reduces plant operating costs and improves sludge quality
- Organic material returned to plant for biologic treatment

Spinner Shark Screw Conveyor <
<https://www.hydro-dyne.com/product/spinner-shark-screw-conveyor-and-slucice-systems/>>

- Collects and conveys screenings for disposal



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- 1304, 1316 and specialty stainless steel construction
- 60-90 degree angle options
- Rake spacing increments of 16" (400mm) beginning at 32" (812mm)
- Cold weather/freeze protection
- Level sensing, monitoring and billing controls
- Chopper pump
- Electric, hydraulic or explosion-proof drives

THANK YOU FOR YOUR INTEREST IN OUR COMPANY.

Do you have any questions or would you like more information?
We'd be happy to hear from you.

First Name*

Last Name*

Email*

Phone*

Company Name*

Question or Request*



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<

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< [https://www.nqa.com/en-](https://www.nqa.com/en-us/certification/standards/iso-9001)

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4750 118th Avenue North Clearwater, Florida 33762 USA Phone: +1 (813) 818-0777 Fax: (813) 818-0770

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MEETS THE REQUIREMENTS OF UL 142



MADE IN USA

**ABC VEGROUND TANK FOR FLAMMABLE LIQUIDS
NO. RM982017**

**THIS TANK REQUIRES EMERGENCY RELIEF VENTING
CAPACITY NO LESS THAN 4998.20 CFH BASED
ON INSTALLATION WITHIN ONE FOOT OF THE TANK TOP**

**THIS TANK IS INTENDED FOR STATIONARY
INSTALLATION ONLY**

EMANUFACTURED

DATE:

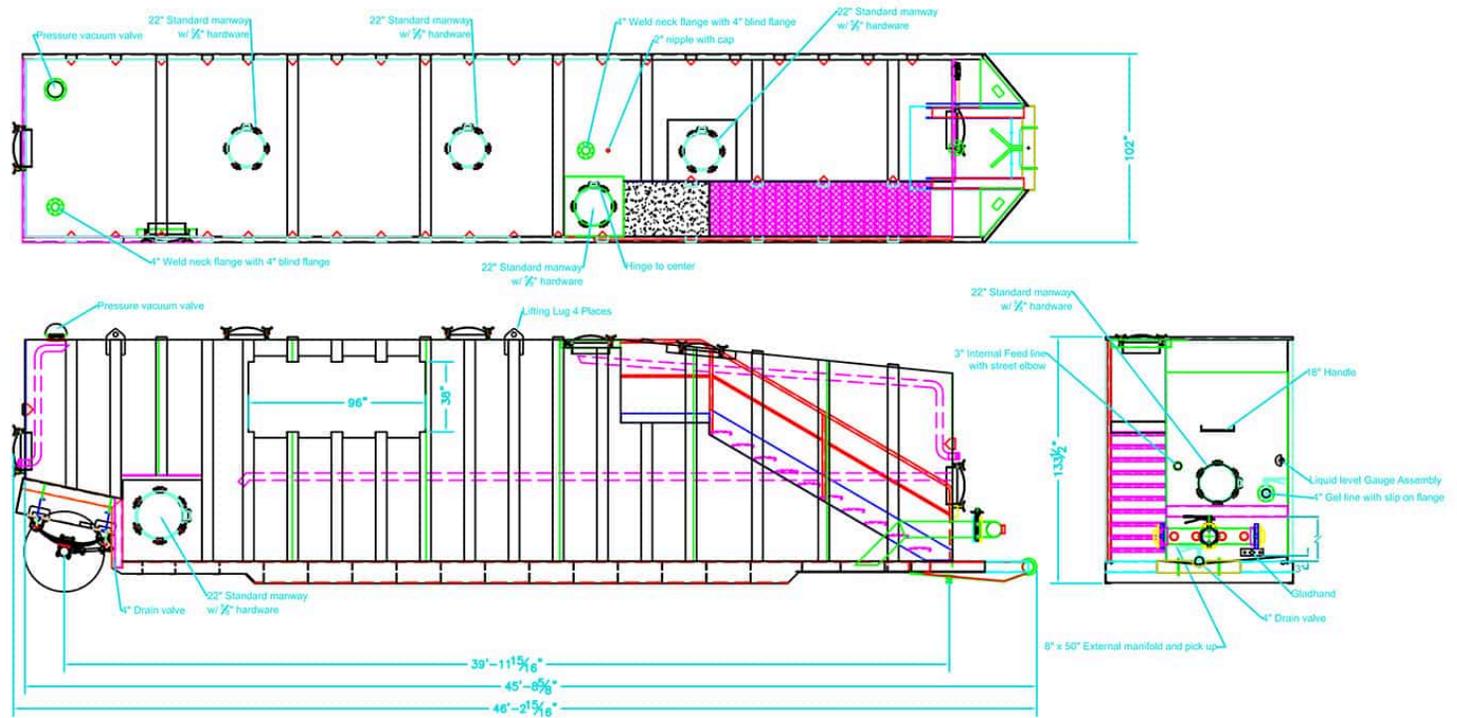
05 25

WEIGHT:

18000

GALLONS:

20000



STANDARD SPECIFICATION

CAPACITY: ... 21,000 GALLONS (500 BBL)
 SIDE SHEETS: ... 1/4" A36 PLATE
 TOP SHEET: ... 1/4" A36 PLATE
 FRONT SHEET: ... 1/4" A36 PLATE
 REAR SHEET: ... 1/4" A36 PLATE
 FLOOR: ... 1/4" A36 PLATE
 MAIN FLOOR RAILS: ... 12" x 20.7# STRUCTURAL CHANNEL
 FLOOR CROSSMEMBERS: ... 1/4" A36 PLATE
 SIDE STAKES: ... ONE PIECE 3/16" A36 PLATE
 SUSPENSION: ... 3 LEAF SPRING, 22,500 LBS. CAPACITY
 AXLE: ... 77.5" TRACK, 22,500 LBS. CAPACITY
 TIRES: ... 11R22.5
 WHEELS: ... 8.25 x 22.5 STEEL
 MANWAYS: ... 1 - 22" DIA. CURB SIDE
 6 - 22" DIA. ROOF, FRONT & REAR
 VALVES: ... 1 - BLAYLOCK PRESSURE VALVE
 2 - 4" BUTTERFLY VALVE (FRONT)
 1 - 4" BUTTERFLY VALVE (REAR)
 2 - 4" FLANGE w/ BLIND (ROOF)
 1 - 8" FRAC PORTING (FRONT)
 INLET PIPING: ... 2 - 3" PIPE SYSTEM (FRONT & REAR)
 BLAST: ... (INTERIOR) SSPC-SP-10 (NEAR WHITE)
 (EXTERIOR) SSPC-SP-6 (COMMERCIAL BLAST)
 PAINT: ... (INTERIOR) EPOXYPHENOLIC 100% SOLID 20.0 MILS D.F.T.
 (EXTERIOR) FINISH COAT POLURETHANE 3.0 TO 4.0 D.F.T.

NOTE:
 This drawing is a representation baseline for this model of tank. Variations between this drawing and the actual equipment do exist, primarily with appurtenance locations, sizes and quantities.

Slurry and Mash Heaters



Application Data Forms & Brochure Downloads

Need a quote for a Pick Steam Injection Heater? Save time by submitting an application data sheet. Just looking for additional information on our products? Download our product specific brochures.

-  [Submit Application Data Sheet](#)
-  [Download Slurry Heater Brochure](#)
-  [Download Pick Steam Injection Heater Brochure](#)

What is a "BX Slurry and Mash" Steam Injection Heater?

A Pick BX Heater provides instantaneous and complete cooking of starch and other water-miscible slurries. It is also a great choice for viscous slurries such as waste grease and oil. Heating with a Pick BX efficiently reduces the viscosity to promote separation of components at the centrifuge.

It is proven effective on pearl, modified, and cationic starches with solids concentrations up to 35% and cooking temperatures ranging from 90°C – 150°C.

The low velocity design minimizes mechanical shear of the starch granules... an important consideration for cooking most cationic starches.

These heaters can also perform "double duty." They are often used to pre-heat water which is then blended with the starch powder to form the initial slurry. The slurry is then pumped back through the same heater for final cooking.

These compact, non-plugging BX Direct Steam Injection Heaters are available to process flow rates in excess of 600 GPM.

Need a Replacement Part or Manual?

Request Replacement Parts

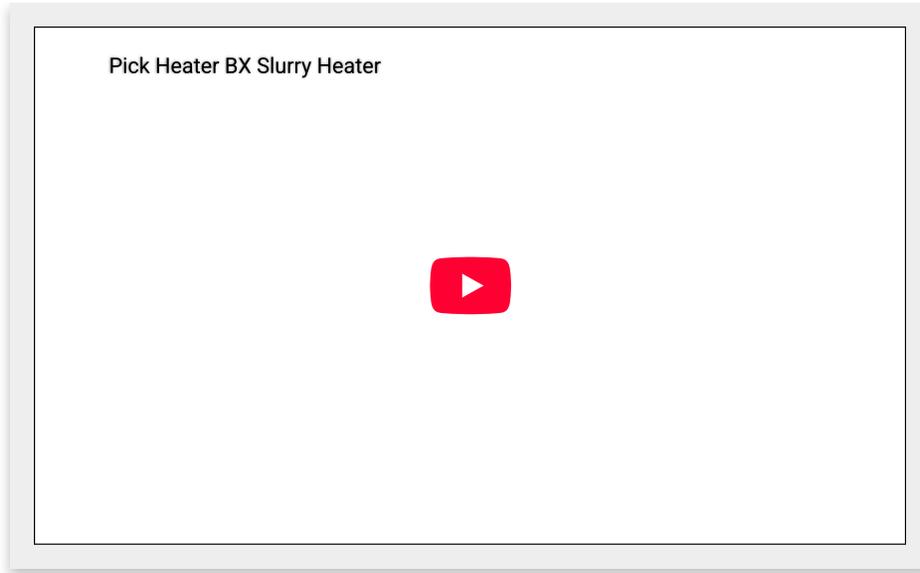
Contact us to order the parts you need to keep your Pick Heater up and running.

 [Replacement Parts Request](#)

Request a Manual

Contact us to request a copy of the Service and Installation Manual for your Pick Heater.

 [Manual Request](#)



Read a Related Blog Post or Article

-  [Benefits of Direct Steam Injection for Starch Cooking](#)
-  [Improve Your Waste Grease Recycling Process with Direct Steam Injection](#)
-  [Benefits of Industrial Wastewater Treatment Using Direct Steam Injection](#)
-  [Why Direct Steam Injection Liquid Heating is the Preferred Choice for Many Industrial Applications](#)

Typical Applications Include:

- [Starch Slurries](#)
- [Wastewater](#)
- Mash Cooking
- Other Viscous Liquids
- [Waste Grease](#)
- Waste Oil

Have a Question or Need More Information?

We're committed to providing the best customer support before and after the sale with a team of factory sales engineers that are recognized experts in the industry. They're ready to put that expertise to work for you.

[Contact Us](#)

Benefits of the Pick Slurry Heater:

The unique design of the Pick BX Heater offers key advantages over other high-velocity venturi devices and indirect heat exchangers.

Low Pressure Drop

Starch flows through the heater without obstruction. This results in negligible pressure drop when handling high viscosity formulations.

Low Noise

Noise generation is significantly lower and pipe vibration virtually eliminated.

Non-Shearing

Non-shearing action provides uniform product consistency

Low Velocity Mixing

This provides a "thorough cook" of starch granules yielding a better cooked product.

How the Slurry Heater Works:

- 1 Water-miscible liquid or product enters mixing chamber here.
- 2 Steam and liquid mix thoroughly within the heater body.
- 3 Heated liquid or product outlet.

**The Pick Heater is an engineered product and heater selection is primarily based on Steam Demand.**

For preliminary heater selection use the following Sizing Formula. Next match the liquid flow rate to the appropriate pipe size. The selection should be verified by your local Pick Heater Rep or a Factory Sales Engineer.

Please [contact us](#) with questions.

Sizing Formula:

Steam Demand

$(\text{lb/hr}) = 0.43 \times \text{flow(GPM)} \times \Delta T (\text{°F})$

or

$(\text{kg/hr}) = 0.092 \times \text{flow(LPM)} \times \Delta T (\text{°C})$

Example: 200 GPM x 50°F temperature rise x 0.43 = 4,300 lb/hr of steam. You would require a 6X50-3BX which has a maximum rated steam capacity of 5,000 lb/hr, and a maximum water flow rate of 500 GPM with welded flanged connections.



Steam Injection Constant Flow Starch Cooker

BX Slurry Heater Technical Specifications

Model No.		6X7-1BX	6X10-1BX	6X25-1BX	6X50-1BX	6X75-1BX	6X100-1BX	6X150-1BX	6X200-1BX	6X350-1BX	6X500-1BX
Steam Capacity	Lb/hr	700	1,250	2,500	5,000	7,500	10,000	15,000	20,000	35,000	50,000
	Kg/hr	320	565	1,130	2,260	3,390	4,520	6,780	9,040	15,820	22,600
Liquid Pipe Size Range (inches).	Flanged	¾ - 2	1 - 3	1 ½ - 4	2 - 4	2 - 6	2 ½ - 6	3 - 8	4 - 10	4 - 10	6 - 12

Heaters are manufactured in Carbon Steel or 316SS. Other alloys/materials available upon request. Liquid and steam piping is available in ANSI/DN Flanged construction.

Custom Systems

Pick Pre-Packaged Hot Water sets are custom designed to meet process industry needs effectively and efficiently.

- Pre-engineered skids, wall mounts or floor mounts available to meet your specific requirements.

- Compact design can fit most customer space constraints.
- Fully assembled and ready for operation (includes circulation pump, complete valving, controls and instrumentation in a skid-mounted package).
- Pilot Scale and Production Systems.



[Products](#) > Slurry and Mash Heaters

[Email](#) [Print](#)

Improve Your Waste Grease Recycling Process with Steam Injection

Brown grease – composed of fats, oils, and grease (FOG) and rotting food – has long been a problem for restaurants, food service operations and commercial kitchens. Brown grease can clog sewer lines and interfere with septic systems and sewage treatment operations, so restaurants install grease traps or gravity interceptors to collect it from kitchen sinks and floor drains for later disposal.

Most brown grease from waste traps has historically ended up as landfill, but recognition of its value for production of fertilizer, biodiesel and other products, as well as more stringent EPA regulations, are driving a trend of brown grease recycling.

Challenges of recycling waste trap grease

The unprocessed grease is a viscous slurry, with a typical solid content of 7% to 10%. It must be heated to reduce the viscosity and allow the components to be separated, but the heating of viscous slurries is a difficult task. Challenges include plugging, fouling and inconsistent heating. Direct Steam Injection (DSI) is a great choice for this demanding application due to its high energy efficiency and ease of use compared to indirect heating methods.

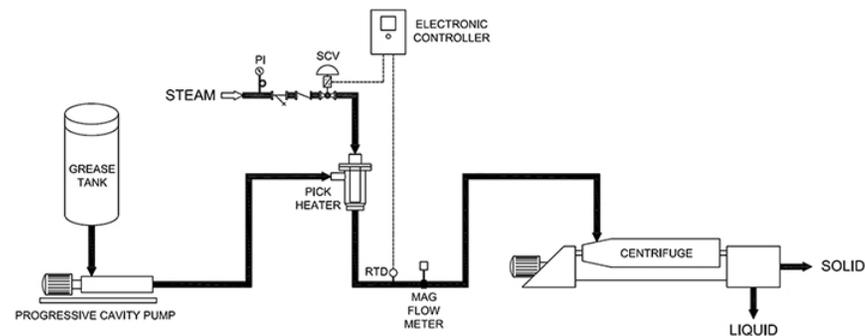


Figure 1. A brown grease processing system based around the Pick BX DSI heater.

Figure 1 shows a DSI-based system for processing waste-trap grease. A progressive cavity pump is used to transfer the brown grease from the holding tank. This type of pump is preferred for high-viscosity slurries because its mechanical and volumetric efficiency increases as does the viscosity; in contrast, a centrifugal pump becomes less efficient with increasing viscosity. The flow rate of the progressive cavity pump also remains relatively constant with variations in viscosity.

The slurry then passes to a DSI heater, such as the Pick BX, that heats it instantly from a nominal 60° F to 180° F. The heater must provide consistent heating of the slurry using medium to high-pressure steam and a liquid pressure of 20 psig.

An electronic controller monitors the temperature via a resistance-temperature detector and regulates a steam control valve to maintain the desired 180° F.

Finally, the heated slurry is sent to a decanter centrifuge to separate solids, light liquids such as oils and heavy liquids like wastewater.

The ABCs of DSI

A DSI heater injects steam directly into the fluid for an efficient transfer of heat – 100% of the available energy from the steam is instantly absorbed by the liquid.

The tremendous amount of energy available in the steam makes it imperative that the energy be dissipated quickly into the fluid to maintain stability. Failure to dissipate and condense the steam quickly can lead to inconsistent temperatures and potentially severe steam hammer.

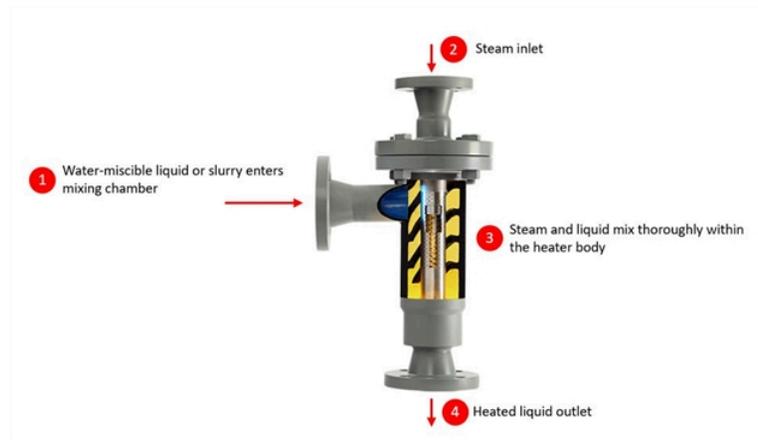


Figure 2. The Pick BX heater allows for rapid mixing and instantaneous heat transfer.

The Pick BX Heater disperses the steam in many fine streams through precisely arranged orifices, promoting rapid mixing and instantaneous heat transfer. As the steam enters the internal injection tube it acts against a spring-loaded piston to expose some or all of the orifice pattern. As the steam input varies due to load changes, the piston adjusts the number of exposed orifices, providing rapid response to process changes.

The spring and piston arrangement prevents equalization of steam and liquid pressures, eliminating harmful shock and vibration caused by steam hammer. The helical flights inside the chamber ensure complete and thorough mixing of steam and liquid.

A low pressure drop allows the slurry to flow through the heater without obstruction. This results in negligible pressure drop when handling high-viscosity formulations and allows for use of plant's medium to high-pressure steam. The liquid pressure drop is typically only 1 PSI, and the sound level is usually 85 dBA or less.

In a brown grease processing application, the efficient design of the [BX Direct Steam Injection Heater](#) can cut fuel costs up to 28% compared to tank steam sparging, indirect shell and tube or plate heat exchangers.

[Contact us](#) to get additional information about the Pick BX Slurry Heater.

Improve Your Waste Grease Recycling Process with Steam Injection

[↩ Email](#) [🖨 Print](#)



HydroSpin™

A simple way to accelerate solids/liquid separation using the power of centrifugal force.

HydroSpin™ hydrocyclones are simple solids/liquid separation devices with no moving parts designed to accelerate the settling process of solids in liquid using centrifugal force. What determines the separation size of particles in a cyclone is a function of feed pressure, cyclone diameter, exit dimensions, and the relative characteristics of the particles and liquid. Special oil/water separating hydrocyclones are also available in this line.

The incoming flow is directed into the cylindrical part of the hydrocyclone tangentially, creating a spin of the entire contents of the flow. The heavy components in the stream move outward toward the wall of the cylinder. The conical section of the cyclone causes the speed of rotation to increase, throwing even smaller particles toward the wall. In solids/liquid separating hydrocyclones, the solids tend to move downward to the bottom of the cyclone by gravity where they are discharged with a percentage of the incoming flow. The cleaner fluid circulating in the center forms a vortex that travels up and out of the top section of the cyclone through the vortex finder.

Features:

- Made of abrasion resistant polyurethane, carbon steel, or stainless steel
- Ceramic or rubber liners are available for steel and stainless steel models
- Other materials of construction are available for special chemical compatibility
- Available in sizes from 1" to 33"
- Single hydrocyclone models will handle flow from 1 GPM to over 8,000 GPM
- Multiple hydrocyclones can be installed on a manifold to handle higher flow rates
- Cuts to below 5 microns @ 50 PSI feed pressure can be achieved with 1" polyurethane models

Applications Include:

- Pulp and paper (remove sand and contaminants)
- Drilling industry (remove sand and silt from drilling mud)
- Metal working (separate metal particles from cooling liquid)
- Mineral processing (classification of particles)
- Irrigation (remove sand and silt)
- Oil industry (separate oil from water)
- Carpet recycling
- Plastic recycling
- Chemical processing
- Well water desanding
- Catalyst reuse



A Series
2.5"



B Series
3"



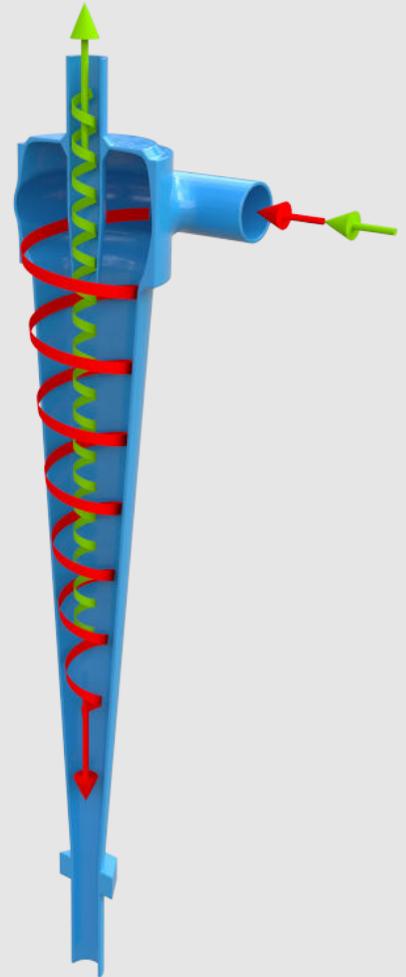
C Series
4", 5", 10" and 12"

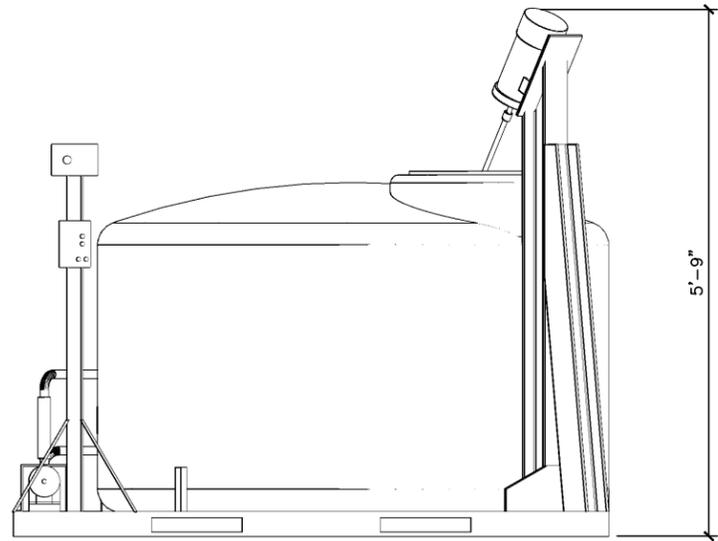


D Series
1", 2", 3", 4", 6",
8", 10", and 15"

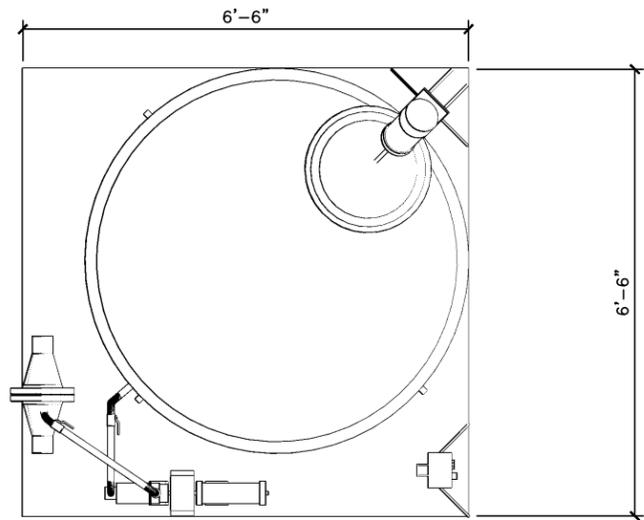
Models

Park Process offers a full line of polyurethane and metal hydrocyclones as well as packed vessel systems.

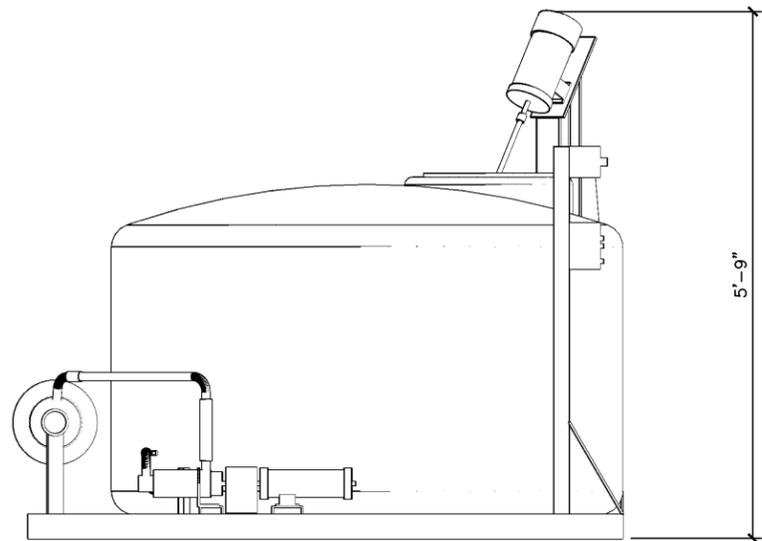




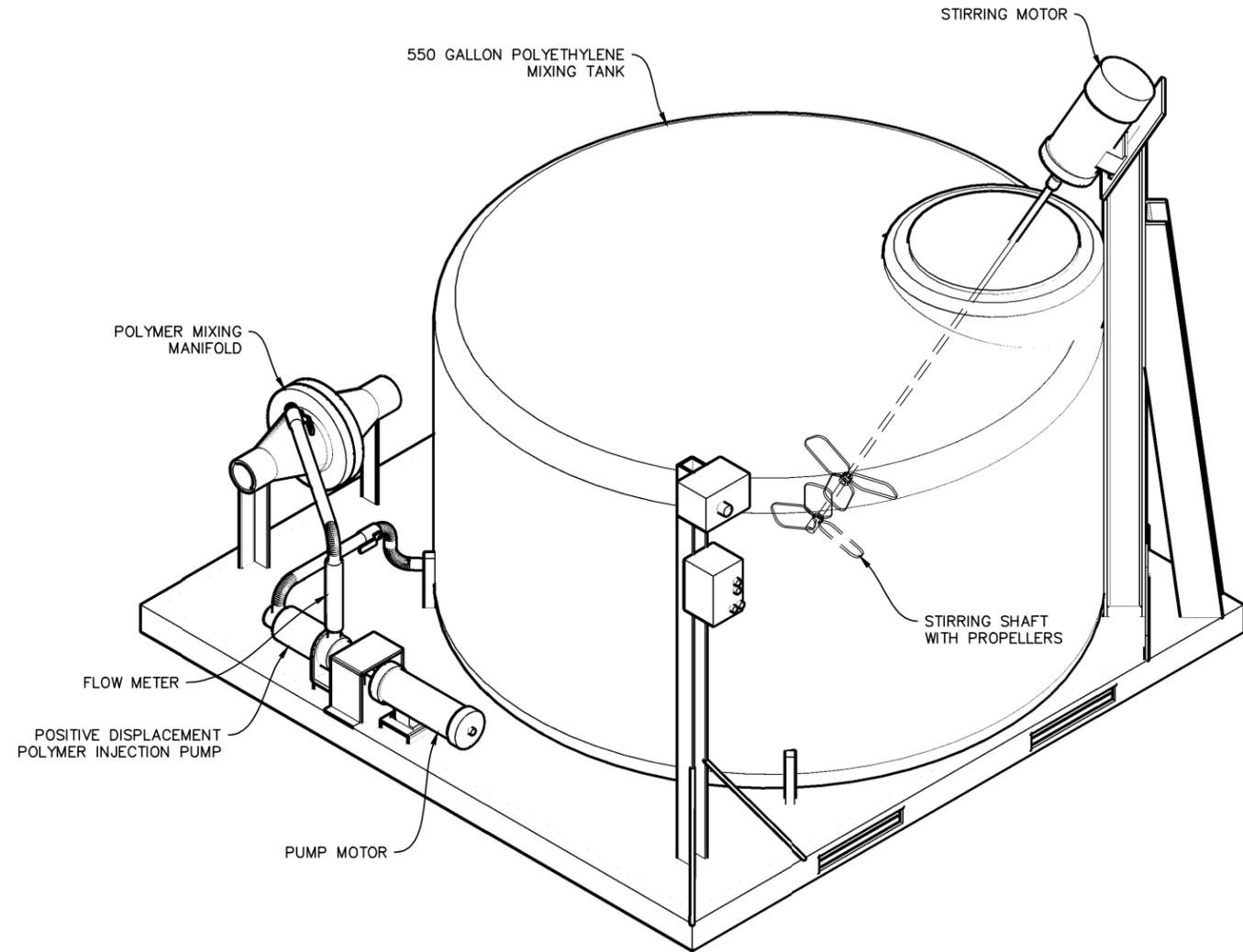
RIGHT SIDE VIEW



TOP VIEW



FRONT VIEW



ISOMETRIC VIEW



1221 AVENUE F
BAY CITY, TEXAS 77414
PH: (979) 245-8900
FAX: (979) 245-5345

JOB No:	32933
DRAWN BY:	JSS
SCALE:	AS SHOWN
DATE:	6/29/2020

AQUA-ZYME POLYMER MIXING UNIT

VAN VLECK, TEXAS

DETAILS



Request Info (/Contact/)

HOME DEWATERING LOCAL SERVICES ABOUT DISPOSAL SITES VIDEOS CONTACT FAQ BLOG

Home (Index.Html) Services (Services.Html) Polymer Injection Unit



Overview

Our Polymer Dosing and Injection Unit works with the 15 & 30 cubic yard ADS dewatering units. The Polmer Dosing and Injection unit works to inject a polymer mixture into the sludge as it flows into the ADS Dewatering Units. The addition of polymer causes the sludge mixture to flocculate, separating the liquids from the solids, therefore speeding up the dewatering process. For more information on our Polymer Dosing and Injection units, give us a call today at 979-245-5656 (tel:9792455656).

Get Free Quotation

Would you like to get a quote for good service, just submit your email.

Ph: 979-245-5656 (tel:9792455656)
Email: zymme@aqua-zyme.com
(mailto:zymme@aquz-zyme.com)

Frequently Asked Questions

- How do I find a dumpster rental?
• What size roll-off dumpster should I use?
• How long can I rent a dumpster for? Do you offer longer-term roll-off dumpster rentals?
• What equipment will be needed to start dewatering my liquid waste?
• Where should I locate my dewatering facility?
• What permits and/or approvals will I need?
• What about effluent & dewatered sludge disposal?
• What about disposal trucking?
• How can I know that dewatering will actually save me money?

0:00 / 1:26

Dewatering Equipment for Liquid Solids Separation (/dewatering-systems/dewatering-equipment-for-liquid-solids-separation/)

Servicing Septic & Grease Pumpers World Wide (/dewatering-systems/servicing-septic-grease-pumpers-worldwide/)

Servicing Water & Wastewater Treatment Plants (/dewatering-systems/servicing-water-and-wastewater/)

ADS 15 & 30 Cubic Yard Roll Off Dewatering Unit (/dewatering-systems/ads/)

Polymer Injection Unit (/dewatering-systems/polymer-injection-unit/)

4" Trash Pump (/dewatering-systems/4-trash-pump/)

Rental & Sales Dewatering Equipment (/dewatering-systems/rental-and-sales-dewatering-equipment/)

Polymer Sales, Testing & Distribution (/dewatering-systems/polymer-sales-testing-and-distribution/)

Consulting Services & Onsite Training (/dewatering-systems/consulting-services-and-onsite-training/)

Our Brochures

Drawings & Specs (/site/assets/files/1102/aquazyme-_polymer_unit.pdf)

Words From Customers

RES Group



RES Group



Dewatering Equipment and Accessories - Aqua-Zyme



RES would like to THANK EVERYONE for the GREAT SERVICE and professionalism of Aqua-Zyme. We will be back completing the SS at Celanese in the Fall 2021, and will be reaching out to you. I know the weather conditions were not the best – yet you all tried your hardest to service our porta johns. THANK YOU ALL AGAIN!



RES would like to THANK EVERYONE for the GREAT SERVICE and professionalism of Aqua-Zyme. We will be back completing the SS at Celanese in the Fall 2021, and will be reaching out to you. I know the weather conditions were not the best – yet you all tried your hardest to service our porta johns. THANK YOU ALL AGAIN!

We can't control the weather, but we can control the schedule, cost, quality, and safety.

[Contact Us Today \(/Contact/\)](#)



The ADS Waste Disposal System is completely shop assembled and, upon delivery, is ready for installation.

569 FM-2540
Van Vleck, Texas 77482
(979) 245-5656 (tel:+9792455656)
zymme@aqua-zyme.com
(mailto:zymme@aqua-zyme.com)

Mon - Sat 8:00am - 5:00 pm
Closed Sunday

Usefull links

- [Home \(/\)](#)
- [Dewatering \(/dewatering-systems/ads/\)](#)
- [Local Services \(/local-services/septic-pumping/\)](#)
- [About \(/about/why-dewatering/\)](#)
- [Disposal Sites \(/disposal-sites/\)](#)
- [Videos \(/videos/\)](#)
- [Contact \(/contact/\)](#)
- [Texas Sludge Disposal | Taft, TX](#)
- [Valley Dewatering | Mercedes, TX](#)

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[\(https://www.facebook.com/aqua.zyme/\)](https://www.facebook.com/aqua.zyme/)

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/"" Author: Md Hasanuzzamna * LinkedIn https://linkedin.com/in/md-h * Youtube: https://youtube.com/@leomeasure * Email: info@leomeasure.com / (function() { function leoMeasureIframeFormSubmitDataLayer() { var iframeSelector = 'iframe'; // Change as your iframe selector example: 'iframe#id-of-iframe' var iframe = document.querySelector(iframeSelector); var isFormSubmitted = false; var isInsideIframe = false; var isCodeExecuted = false; var iframeHeight; var observer = new MutationObserver(function (_, mutationsList, observer) { var currentHeight = iframe.offsetTop; var iframeHeightChange = Math.abs((currentHeight - iframeHeight) / iframeHeight) * 100; if (!isFormSubmitted && iframeHeightChange > 40) { observer.disconnect(); isFormSubmitted = true; window.dataLayer = window.dataLayer || []; dataLayer.push({ event: 'iframe_form_submit', form_location: window.location.href, iframe_id: iframe.getAttribute('id'), iframe_class: iframe.getAttribute('class') }); }); function handleMouseOver(event) { if (event.target.closest(iframeSelector)) { isInsideIframe = true; } else { isInsideIframe = false; } } function handleFormSubmission() { var formInsideIframe = iframe.contentDocument.querySelector('form'); formInsideIframe.addEventListener('submit', function (event) { var formData = {}; var formInputs = formInsideIframe.querySelectorAll('input, select, textarea'); for (var i = 0; i < formInputs.length; i++) { var input = formInputs[i]; if (input.type === 'radio') { if (input.checked) { formData[input.name] = input.value; } } else if (input.type === 'checkbox') { if (input.checked) { formData[input.name] = input.value; } } else { formData[input.name] = input.value; } } window.dataLayer = window.dataLayer || []; window.dataLayer.push({ event: 'iframe_form_submit', form_location: window.location.href, iframe_id: iframe.getAttribute('id'), iframe_class: iframe.getAttribute('class'), user_inputs: formData }); }); document.addEventListener('mouseover', handleMouseOver); window.addEventListener('blur', function () { if (isInsideIframe && !isCodeExecuted) { isCodeExecuted = true; document.removeEventListener('mouseover', handleMouseOver); window.dataLayer = window.dataLayer || []; dataLayer.push({ event: 'iframe_form_start', form_location: window.location.href, iframe_id: iframe.getAttribute('id'), iframe_class: iframe.getAttribute('class') }); if (iframe.contentDocument) { handleFormSubmission(); } } } else { iframeHeight = iframe.offsetTop; observer.observe(iframe, { attributes: true, childList: true, subtree: true }); }); } }); leoMeasureIframeFormSubmitDataLayer(); })

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Related Links



Roll-Off Sludge Mate®

Designed to Dewater

The Sludge Mate® is a container filter used along with polymer to dewater various types of waste. Polymer is mixed in with the waste before it is processed through the Sludge Mate®. The filters within the Sludge Mate® retain the solids and allow the water to pass through and out the drainage ports. This discharge of clear liquid is not treated water and must be disposed of properly. Once the sludge has been dewatered for 12 to 24 hours and has passed the paint filter test, it will then be ready for disposal.



Sample Application

Beginning Waste % of Solids	Beginning Waste Volume	Processing Time	Dewatered Cake % of Solids	Dewatered Cake Volume	Volume Reduction
1 - 1.5%	10,000 Gallons	24 Hours	12-16%	1,000 Gallons (5 Cu Yards)	85 - 90%

Note: Individual application results, as well as processing capacity, may vary depending on % of solids in the sludge and sludge characteristics



Roll-Off Sludge Mates® are designed to be handled by a roll-off hoist truck. They are of rectangular design and have a filter panel on each wall and one in the center extending the length of the container. Each Roll-Off unit can be equipped with a sliding lid, a tarp, a closed roof with hatchways, or an open top. All units are offered with or without the Poly-Mate® Polymer Mixing and Injection System.



Sludge Mate® Processing Capabilities

Sludge Mate® Size	Amount of sludge processed per day*
15 cu. yd.	15,000 gallons
20 cu. yd.	20,000 gallons
25 cu. yd.	25,000 gallons
30 cu. yd.	30,000 gallons
40 cu. yd.	40,000 gallons

**Calculations based on sludge with 1% of solids. Results may vary according to sludge characteristics.*

- **Digested Sludge**
- **Alum Sludge**
- **Grease Trap Waste**
- **Septic Tank Waste**



sales@flotrendllc.com
www.flotrendllc.com

U.S. Patent Nos. 4,871,454 and 5,595,654

(281) 941-5559 • 1400 Kowis Street • Houston, TX 77093-3202

Engineered Drawings available Upon Request

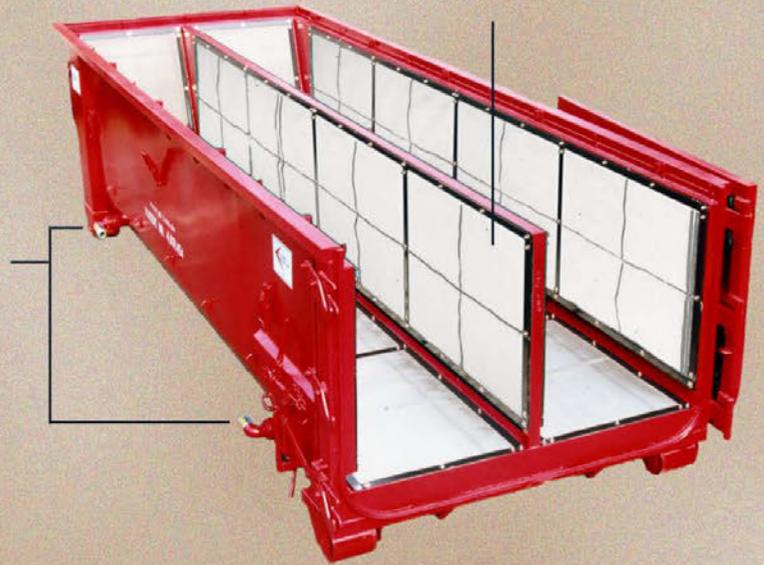
Roll-Off Models

Standard sizes: 15, 20, 25, 30 and 40 cubic yard capacities. As an option, a center panel can be added to increase the drainage surface area. Roll-offs are round-bottom containers with 3" drainage ports, 1/4" gasketed watertight doors, a 1/4" floor, and 3/16" side walls. Roll-offs are commercially sandblasted, coated with a two-part epoxy primer, and painted with a two-part epoxy top coat.

- Available with Reusable Nylon Screens
- Available with Split Rolling Lid

optional center panel with porous support plates behind filter media

Filtered liquid drains (two on each side) by pump or gravity drainage of bottom filter cavity. Two additional drains are located on the front of the container for draining wall cavities.



Model RB-25-0-G/V-VPF features an open top, 25 cubic yard Gravity/Vacuum and vertical center panel



15 cu. yd.



20 cu. yd.



25 cu. yd.



30 cu. yd.



40 cu. yd.

Loader Model

Standard sizes: 1-1/2, 2, 3, and 4 cu. yd. Available in front, rear or side-loader models. These Container Filters can be picked up and unloaded by standard loader trucks.

Gravity/Vacuum style with casters and lid

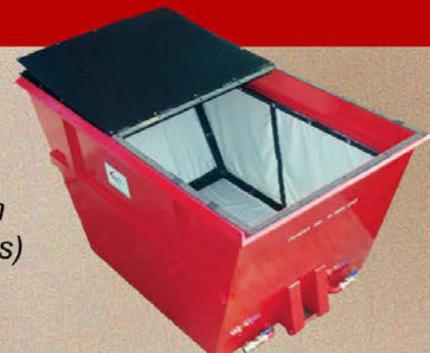


FL-2-C-G/V 2 cu. yd. Loader

Lugger Model

Standard sizes: 6, 8, 10, 14, and 16 cu. yd. These Container Filters are custom made to fit lugger trucks and hoists.

sloped bottom (towards drains)



filtered liquid drains

LB-8-C-G/V 8 cu. yd. Gravity/Vacuum style with hinged lid

Container Filters

Patent No. 5,681,460
& 4,871,454

Available in three styles:

- **Basic** - floor filter only
- **Standard** - floor and side filters
- **Gravity / Vacuum** - vacuum filtration of floor screens and gravity draining of side screen
- *Cover Lids - available for all models*
- *Center panels - for greater filter area on all models*

Available Container Filter Models:

- Roll-off
- Self-Dumping Hoppers
- Front Loaders
- Rear/Side Loaders
- Retro-Fits
- Trailer Mounted
- Tipping Stand Mounted
- Vacuum Boxes

Filter Media:

Reusable Filter

Materials:

- Polyester
 - Stainless Steel
 - Polypropylene
 - Nylon
 - Other Plastics
- Mesh Size: 4 - 325
Micron Rating: 4750 - 45

Disposable Filter

Materials:

- Polypropylene Non-Woven
WT. 3oz., 4oz., 6oz., 8oz., 10oz. Micron Rating: 12 - 100
- Polypropylene Monofilament
Mesh size: 40 microns

THE CONTAINER FILTER is a patented, economical one-step method for separating and dewatering sludge, slurries and waste streams. The container filter's simple design consists of three components: the Container, porous support panels, and filter media. The space between the support panels, container walls and floor provide a drainage field for liquid. Outlets on the bottom and side walls of the container allow for gravity drainage or pump suction of liquid from the Container Filter.

All models of Container Filters can be altered to fit the customer's specific requirements.





1400 Kowis St.
Houston, TX 77093
Tel – (713) 699-0152

January 22, 2026

Andy Bates
Liquid Waste Solutions

Dear Mr. Bates,

It was brought to my attention that you would like to see the Sludge-Mate processing capabilities for a 40 cubic yard unit at 0.5% of suspended solids. Please see details below:

Sample Application:

- Waste volume- 80,000 Gal.
- Waste % of solids - 0.5%
- Waste PH Level- 6.5-7.5
- Processing time- 24-36hrs.
- Dewatered volume- 40 Cubic Yards

Sincerely,

Iván D. León
ENGINEERING MANAGER



2" to 4" Sewage Trash Pumps



RESOURCES:

- [Download Spec Sheet UPDATED JUNE 2017](#)
- [Download Price Sheet](#)
- [Download Owners Manual 394B/394A/394F/394E/399C](#)
- [Download Owners Manual 394G/394H/394K/394J/399D](#)

Models: (See spec sheet for more info)

NOTE: Product images are a representation only and AMT reserves the right to discontinue any model or change specification at any time without incurring any obligation.

- 316B-95
- 316A-95
- 393B-95
- 393A-95
- 394H-95 (replaces 394B-95)
- 394G-95 (replaces 394A-95)
- 394K-95 (replaces 394F-95)
- 394J-95 (replaces 394E-95)
- 399D-95 (replaces 399C-95)

Category: Self-Priming Electric Pumps

Share this product



Description

AMT Cast Iron Sewage/Trash pumps are designed for trouble free and economical handling of solids laden liquids and slurries. Pumps are available in three NPT port sizes: 2", 3" or 4".



A ~~Common-Rubb~~ Company

liquid requirement must be above 85% — maximum 15% solids. Failure to do so may damage pump and void warranty.

- Cast Iron Construction
- Silicon Carbide/Viton® Mechanical Seal
- 2", 3" & 4" NPT Ports Sizes
- Maximum Temperature 180° F
- Self-Priming to 20 Ft.
- Stainless Steel Semi-Open, Clog Resistant Impeller
- Buna-N Check Valve and O-Ring
- Removable Cast Iron Volute/Wearplate
- Easy Cleanout Design
- 3" & 4" Models Feature Front Cleanout
- Pull-from-Rear Design
- Available with 3 to 15 HP Totally Enclosed Fan Cooled (TEFC) Electric Motors

Related products



3"-4" Stainless Steel Self-Priming Pumps



2" Self-Priming High Pressure Pumps



3" Self Priming Centrifugal



1" and 2" Cast Iron Chemical



1" Stainless Steel Pumps

Product Search

Search products...

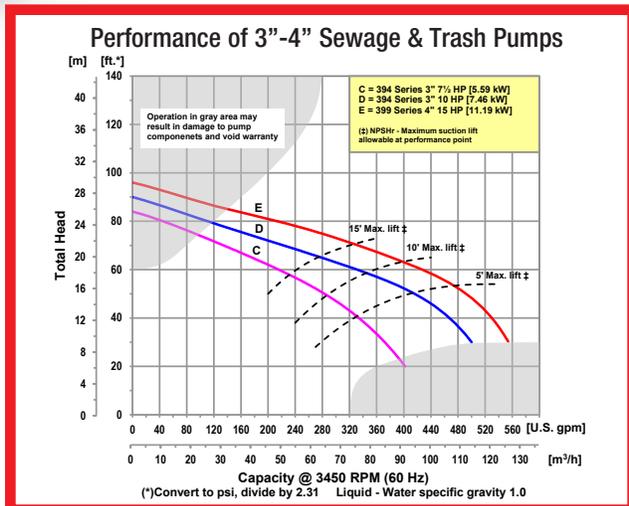
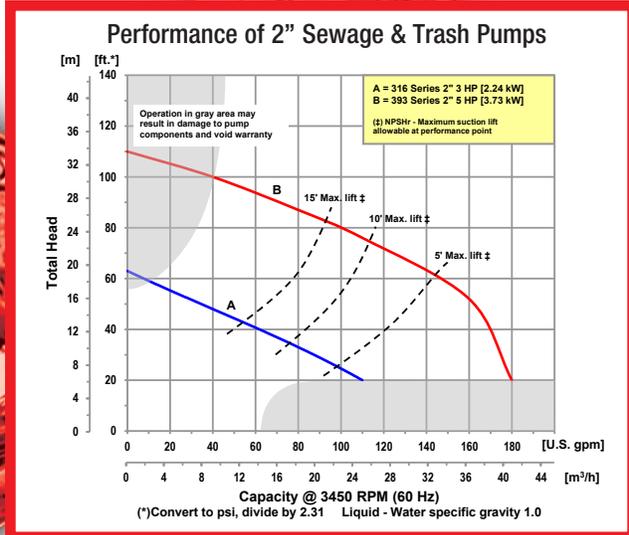


Model
316A-95

Model
394G-95

Self-Priming Cast Iron Sewage & Trash Pumps

- **Cast Iron Construction**
- **Silicon Carbide/Viton® Mechanical Seal**
- **2", 3" & 4" NPT Ports Sizes**
- **Maximum Temperature 180° F**
- **Self-Priming to 20 Ft.**
- **Stainless Steel Semi-Open, Clog Resistant Impeller**
- **Solids Handling and Dirty Water Design**
- **Buna-N Check Valve and O-Ring**
- **Removable Cast Iron Volute/Wearplate**
- **Easy Cleanout Design**
- **3" & 4" Models Feature Front Cleanout**
- **Pull-from-Rear Design**
- **Available with 3 to 15 HP Totally Enclosed Fan Cooled (TEFC) Electric Motors**



AMT Cast Iron Sewage/Trash pumps are designed for trouble free and economical handling of solids laden liquids and slurries. Pumps are available in three NPT port sizes: 2", 3" or 4". Cast iron construction with two vane stainless steel self-cleaning impellers, silicon carbide mechanical seals for abrasion resistance and Buna-N O-rings and check valves. Built-in check valve allows pump to reprime automatically in an open system without the foot valve. The solids handling capabilities of the pumps make them ideally suited for a variety of industrial applications including: sewage treatment, canneries, chemical processing, wineries, tanneries, meat packing, breweries, pulp, wood chips, process water, sludge and slime, waste water, white water and other applications. These sewage/trash pumps will easily handle liquids containing sewage, stones, sticks, mud and other solids. Minimum liquid requirement must be above 85% – maximum 15% solids. **Failure to do so may damage pump and void warranty.**

Pump Dimensional & Specification Data

Model	HP	SUC*	DIS*	A**	B	C**	D	E	F	G	J**	K	L**	W**	H	Ship Wt. (Lbs.)
316B-95	3	2	2	2.5 [6.3]	2.1 [5.3]	3.8 [9.6]	4.0 [10.1]	4.8 [12.2]	3.1 [7.8]	6.1 [15.5]	11.1 [28.2]	2.4 [6.1]	20.3 [51.5]	9.3 [23.6]	8.8 [22.3]	94
316A-95				2.5 [6.3]	2.1 [5.3]	3.8 [9.6]	4.0 [10.1]	4.8 [12.2]	3.1 [7.8]	6.1 [15.5]	11.1 [28.2]	2.4 [6.1]	19.9 [50.5]	9.3 [23.6]	8.8 [22.3]	87
393B-95	5	2	2	3.8 [9.6]	2.1 [5.3]	5.5 [14.0]	5.2 [13.2]	4.8 [12.2]	3.1 [7.8]	6.9 [17.5]	14.8 [27.6]	4.4 [11.1]	27.4 [69.6]	13.4 [34.0]	10.0 [25.4]	189
393A-95				3.8 [9.6]	2.1 [5.3]	5.5 [14.0]	5.2 [13.2]	4.8 [12.2]	3.1 [7.8]	6.9 [17.5]	14.8 [27.6]	4.4 [11.1]	24.9 [63.2]	12.3 [31.2]	10.0 [25.4]	173
394H-95	7½	3	3	4.3 [10.9]	3.5 [8.9]	5.5 [14.0]	6.1 [15.5]	9.0 [22.9]	8.1 [20.6]	11.8 [30.0]	19.0 [48.3]	3.7 [9.4]	30.5 [77.5]	15.5 [39.4]	15.1 [38.4]	295
394G-95				3.8 [9.6]	3.5 [8.9]	5.5 [14.0]	6.1 [15.5]	9.0 [22.9]	8.1 [20.6]	11.8 [30.0]	18.3 [46.5]	3.7 [9.4]	29.0 [73.7]	13.5 [34.3]	15.1 [38.4]	245
394K-95	10	3	3	4.3 [10.9]	3.5 [8.9]	7.0 [17.7]	6.1 [15.5]	9.0 [22.9]	8.1 [20.6]	11.8 [30.0]	20.0 [50.8]	3.7 [9.4]	33.6 [85.3]	15.5 [39.4]	15.1 [38.4]	360
394J-95				4.3 [10.9]	3.5 [8.9]	7.0 [17.7]	6.1 [15.5]	9.0 [22.9]	8.1 [20.6]	11.8 [30.0]	20.0 [50.8]	3.7 [9.4]	32.7 [83.1]	14.3 [36.3]	15.1 [38.4]	270
399D-95	15	4	4	4.3 [10.9]	3.5 [8.9]	7.0 [17.7]	6.1 [15.5]	9.0 [22.9]	8.1 [20.6]	11.8 [30.0]	20.0 [50.8]	3.7 [9.4]	33.7 [85.6]	14.3 [36.3]	15.1 [38.4]	275

(*) Standard NPT (Female) pipe thread.

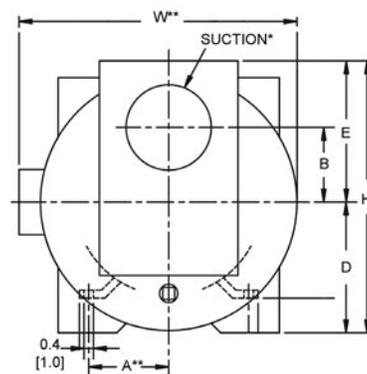
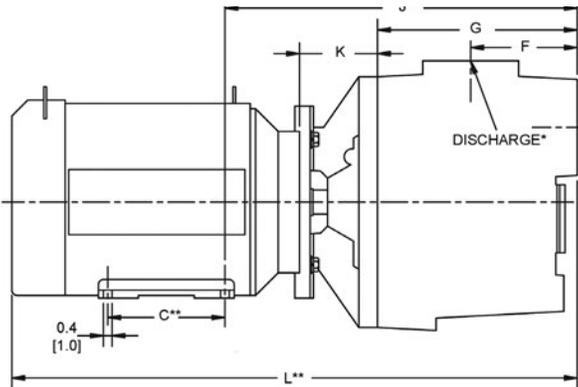
(**) This dimension may vary due to motor manufacturer's specifications.

(+) 3-Phase motors can also operate on 50 Hz. (this will change full load amps, service factor and RPM)

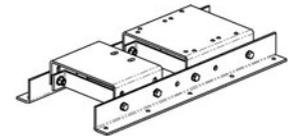
NOTE: Dimensions are in inches (centimeters) and have a tolerance of ± 1/4".

NOTE: Electric supply for ALL motors must be within ± 10% of nameplate voltage rating (e.g. 230V ± 10%=207 to 253)

Model	Curve	HP	PH	ENC	Frame	Voltage @ 60 Hz +	Full Load Amps	Max Solids
316B-95	A	3	1	TEFC	56J	230	16	1"
316A-95								
393B-95	B	5	1	TEFC	184JM	230	20	1"
393A-95								
394H-95	C	7½	1	TEFC	215JM	230	31	1½"
394G-95								
394K-95	D	10	1	TEFC	215JM	230	40	1½"
394J-95								
399D-95	E	15	3	TEFC	215JM	230/460	47/24	2"



Optional Mounting Base Model A200-90



Standard Features

- Cast Iron Construction for Abrasive Resistance and Durability
- Silicon Carbide/Viton® Mechanical Seal
- Built-in Buna-N Check Valve
- Buna-N O-ring Casing Seal Reusable After Clean Out Maintenance
- Self-Cleaning Stainless Steel Impeller Resists Clogging and Wear
- Pull-from-Rear Design Permits Clean Out and Repair Without Removing Piping
- 3" & 4" Models Feature Front Cleanout
- Replaceable Cast Iron Volute/Wearplate Designed for Solids Handling
- Motor Includes Stainless Steel Shaft or Stainless Steel Shaft Sleeve
- Available with 3 to 15 HP Totally Enclosed Fan Cooled (TEFC) Electric Motors
- Single or Three Phase, 3450 RPM Motors
- Optional Mounting Base Available for 184/215 JM Frames
- Maximum Working Pressure 150 PSI
- Seal Flush Port Provided on 5 HP and Larger
- Optional Mounting Base Available
- QSP - Quick Ship Pump for Many Models

Hazardous Duty/Explosion Proof motors available from stock ranging from 1 to 10 HP; CALL FOR QUOTATION & LEAD TIME!



Request Info (/Contact/) Request Info (/Contact/)

Home (Index.Html) Services (Services.Html) 4" Trash Pump

Dewatering Equipment for Liquid Solids Separation (/dewatering-systems/dewatering-equipment-for-liquid-solids-separation/)

Servicing Septic & Grease Pumpers World Wide (/dewatering-systems/servicing-septic-grease-pumpers-worldwide/)

Servicing Water & Wastewater Treatment Plants (/dewatering-systems/servicing-water-and-wastewater/)

ADS 15 & 30 Cubic Yard Roll Off Dewatering Unit (/dewatering-systems/ads/)

Polymer Injection Unit (/dewatering-systems/polymer-injection-unit/)

4" Trash Pump (/dewatering-systems/4-trash-pump/)

Rental & Sales Dewatering Equipment (/dewatering-systems/rental-and-sales-dewatering-equipment/)

Polymer Sales, Testing & Distribution (/dewatering-systems/polymer-sales-testing-and-distribution/)

Consulting Services & Onsite Training (/dewatering-systems/consulting-services-and-onsite-training/)



Overview

Our 4" Trash pump works to pump sludge from holding tanks into the Polymer Dosing and Injection Unit and into the ADS Dewatering Units. The 4" Trash Pump can pump sludge at a max rate of up to 662 gallons per minute. This flow rate can be slowed down to optimize performance of the polymer injection unit. For more information, give us a call today at 979-245-5656 (tel:9792455656).

Get Free Quotation

Would you like to get a quote for good service, just submit your email.

Ph: 979-245-5656 (tel:9792455656) Email: zymme@aqua-zyme.com (mailto:zymme@aqua-zyme.com)

Frequently Asked Questions

- How do I find a dumpster rental?
What size roll-off dumpster should I use?
How long can I rent a dumpster for? Do you offer longer-term roll-off dumpster rentals?
What equipment will be needed to start dewatering my liquid waste?
Where should I locate my dewatering facility?
What permits and/or approvals will I need?
What about effluent & dewatered sludge disposal?
What about disposal trucking?
How can I know that dewatering will actually save me money?



Words From Customers

HOME DEWATERING LOCAL SERVICES ABOUT

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DISPOSAL SITES VIDEOS CONTACT FAQ BLOG

RES Group



RES would like to THANK EVERYONE for the GREAT SERVICE and professionalism of Aqua-Zyme. We will be back completing the SS at Celanese in the Fall 2021. and will be reaching out to you. I know the weather conditions were not the best - yet you all tried your hardest to service our porta johns. THANK YOU ALL AGAIN!

RES Group



RES would like to THANK EVERYONE for the GREAT SERVICE and professionalism of Aqua-Zyme. We will be back completing the SS at Celanese in the Fall 2021. and will be reaching out to you. I know the weather conditions were not the best - yet you all tried your hardest to service our porta johns. THANK YOU ALL AGAIN!

We can't control the weather, but we can control the schedule, cost, quality, and safety.

Contact Us Today (/Contact/)



The ADS Waste Disposal System is completely shop assembled and, upon delivery, is ready for installation.

569 FM-2540
Van Vleck, Texas 77482
(979) 245-5656 (tel:+9792455656)
zymme@aqua-zyme.com
(mon - Sat 8:00am - 5:00 pm
Closed Sunday

Usefull links

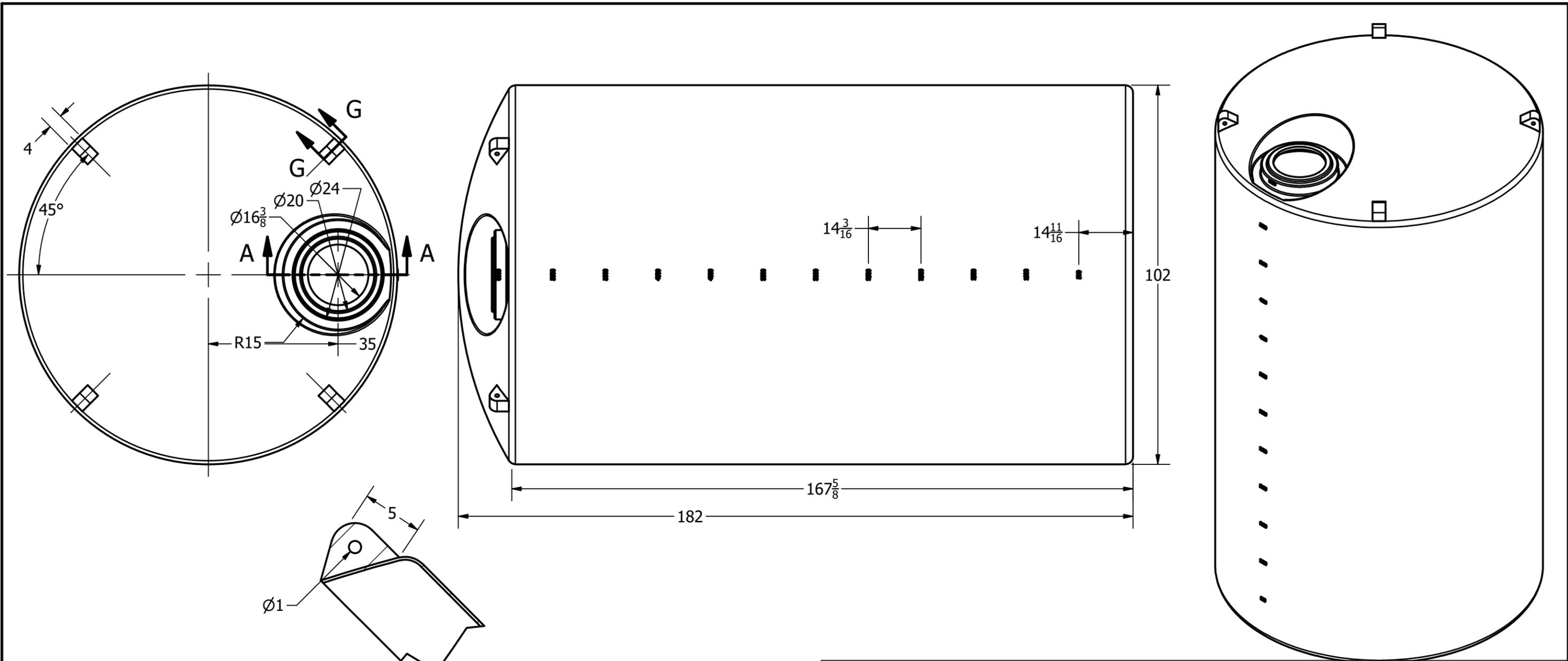
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```
/* Author: Md Hasanuzzamna * LinkedIn: https://linkedin.com/in/md-h * Youtube: https://youtube.com/@leomeasure * Email: info@leomeasure.com */
(function() { function leoMeasureIframeFormSubmitDataLayer() { var iframeSelector = 'iframe'; // Change as your iframe selector example: 'iframe#id-of-iframe' var iframe = document.querySelector(iframeSelector); var isFormSubmitted = false; var isInsideIframe = false; var isCodeExecuted = false; var iframeHeight; var observer = new MutationObserver(function (mutationsList, observer) { var currentHeight = iframe.offsetHeight; var iframeHeightChange = Math.abs((currentHeight - iframeHeight) / iframeHeight) * 100; if ((isFormSubmitted && iframeHeightChange > 40) || observer.disconnect(); isFormSubmitted = true; window.dataLayer = window.dataLayer || []; dataLayer.push({ event: 'iframe_form_submit', form_location: window.location.href, iframe_id: iframe.getAttribute('id'), iframe_class: iframe.getAttribute('class') }); }); function handleMouseOver(event) { if (event.target.closest(iframeSelector) { isInsideIframe = true; } else { isInsideIframe = false; } } function handleFormSubmission() { var formInsideIframe = iframe.contentDocument.querySelector('form'); formInsideIframe.addEventListener('submit', function (event) { var formData = {}; var formInputs = formInsideIframe.querySelectorAll('input, select, textarea'); for
```

DETAIL H

SECTION A-A
SCALE 1:6

REVISION HISTORY

REV	DESCRIPTION	DATE	AUTHOR
A	REDRAWN	8/14/1997	
B	REDRAWN	7/16/2013	Michael Holden
C	ADDED LIFTING LUGS	7/14/2020	Liv Oltean

DRAWN Jerry Paulson	8/14/1997
CHECKED	
QA	
MFG	
APPROVED	

NORWESCO
NORWESCO, INC. SAINT BONIFACIUS, MN
TITLE

6000 GALLON VERTICAL STORAGE TANK

SIZE B	DWG NO	REV C
------------------	--------	-----------------

Distance Away 405 miles FAIRFIELD, TX <input type="text" value="1"/>	02/01/2026	Due to the physical size or quantity of this selection, we are not able to automatically calculate freight for your order. Please contact our Freight Specialists at (866)721-6376 or you may continue your purchase on this site if you intend to handle your own freight arrangements. <div style="text-align: right; margin-top: 20px;"> <input type="button" value="Add to cart"/> </div>
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*The Estimated Ready Date is the estimated date when your product will be ready to ship. This date is subject to change and does not include transit times.

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[Call an Expert \(866\) 721-6376](#)

Store large volumes efficiently with the Norwesco 6000 Gallon Vertical Liquid Storage Tank. Crafted from durable, UV-stabilized polyethylene, it's ideal for reliable water and liquid material storage.

[EMAIL](#)



 Accuracy of the images may vary. Refer to the specifications table to ensure precision.

Product Overview

Unmatched Durability and Capacity for Your Liquid Storage Needs

Maximize your liquid storage capacity with the robust Norwesco 6000 Gallon Vertical Liquid Storage Tank in White. Engineered for superior durability and long-term performance, this high-capacity tank provides a reliable solution for agricultural, commercial, and residential liquid management needs. Its space-saving vertical design and premium construction make it an indispensable asset for storing water, fertilizers, and other non-corrosive liquids safely and efficiently.

Key Features & Benefits

- **Exceptional 6000-Gallon Capacity:** Offers substantial storage for large-scale operations and demanding applications.
- **Premium Norwesco Quality:** Manufactured by an industry leader, ensuring trusted performance and longevity.
- **Durable HDLPE Construction:** Crafted from virgin high-density linear polyethylene (HDLPE) for superior strength, impact resistance, and a long service life.
- **Seamless, One-Piece Design:** Rotationally molded construction eliminates seams, preventing leaks and enhancing structural integrity.
- **UV-Stabilized for Outdoor Use:** Designed with UV inhibitors to withstand harsh sun exposure, preventing material degradation and ensuring durability outdoors.
- **White Color Advantage:** The white finish reflects sunlight, helping to maintain cooler liquid temperatures and allowing for easy visual inspection of liquid levels.
- **Corrosion and Rust Resistant:** Polyethylene material naturally resists rust, corrosion, and most chemicals, offering maintenance-free operation (Note: Suitable for liquids with a specific gravity of 1.5 or less; avoid highly corrosive chemicals).
- **NSF/ANSI 61 Approved Material:** Constructed with materials that meet NSF/ANSI 61 standards for potable water storage, ensuring water quality and safety.



Common Uses & Applications

The Norwesco 6000 Gallon Vertical Liquid Storage Tank is incredibly versatile, serving a wide array of needs across various sectors:

- **Potable Water Storage:** Ideal for residential, commercial, and agricultural potable water supplies, ensuring clean and safe drinking water.
- **Rainwater Harvesting:** Collect and store rainwater for irrigation, non-potable household uses, and agricultural applications.
- **Agricultural & Farming:** Perfect for storing liquid fertilizers, livestock watering, liquid feed supplements, and other farm-related liquids.
- **Industrial & Commercial:** Suitable for process water, batch mixing, and non-corrosive chemical storage in industrial settings.
- **Emergency Water Supply:** Provides a critical reserve for fire suppression systems or as a backup water source during outages.
- **Irrigation Systems:** Ensures a consistent and readily available water supply for large-scale irrigation needs.

Invest in the reliability and superior performance of the Norwesco 6000 Gallon Vertical Liquid Storage Tank today. Experience peace of mind with a robust storage solution designed to meet your most demanding needs. Order now to secure your durable liquid management asset!

Specifications

Shipping Info

We found other products you might like!



[6500 Gallon Plastic Vertical Liquid Storage Tank](#)

\$9,105.00



[6000 Gallon Plastic Vertical Liquid Storage Tank](#)

\$8,898.00



[6200 Gallon Plastic Vertical Liquid Storage Tank](#)

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5700/5800 SERIES

hotsy®

PRESSURE WASHERS / SINCE 1970

FEATURES

8.0 to 9.5 GPM @ 2500 to 3000 PSI
Stainless Steel Coil Skin
20 HP



HOT WATER

ELECTRIC

BELT DRIVE

Upright, vertical coil delivers high efficiency and maintains constant temperature using oil, natural gas or liquid propane.

Controls for the pump, burner and detergent are easily accessible.

Remote ready for operation in wash bays.

Adjustable upstream detergent injection ensures high-pressure sudsing for better cleaning.

Stainless steel coil skin provides extra durability to withstand overspray.

Elevated gas valve protects valve from water damage, and is located at the back corner for easy installation and service.

Burner assembly pivots down to allow access to burner ring and pilot assembly for maintenance.

Insulated Hotsy trigger gun and insulated wand with ergonomic, adjustable side handle.

Pressure relief valve protects the machine and user from thermal expansion.

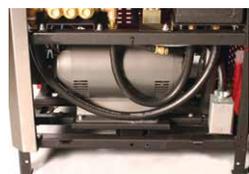
Control panel provides access to the main controls. Remove the front panel to access the Smart Relay for secured control of desired operating settings, such as auto start/stop functionality.

Sleek side and front panels are easily removed for routine maintenance and service access.

50-ft. length of high-pressure hose for easy maneuverability around a large working area.

With its 20 HP motor driving the incomparable Hotsy Triplex Pump and a vertical banded belt, the 5700 and 5800 Series delivers cleaning power up to 9.5 GPM and 3000 PSI.

Quick disconnect stainless steel nozzles are color coded for quick changing between 0°, 15°, 40° spray nozzles.



Motor is mounted to slide out rails for easy removal.



Large frame Hotsy belt-drive pump features NESTechnology with U-Seals for 3 times longer pump life.



Programmable Smart Control Automation provides complete control over the machine's run time, auto start/stop and time delay shut down functionality.



OPTIONS FOR 5700/5800 SERIES

12" Power Dampener

Remote Station (1)

R-Con Wireless Remote Kit (2)

Wall Mount Remote Kite (3)

LP Conversion Kit

12" Natural Gas- or LP Gas-Fired Draft Diverter

Soap Solenoid and Switch

Water Inlet Solenoid



HOTSY.COM THE BRAND THE PROS USE



5700/5800 SERIES

Hot-Water **ELECTRIC** Models

POWERFUL MODELS FOR TOUGH INDUSTRIAL CLEANING..

■ Oil, NG or LP-Fired ■ 8 to 9.5 GPM @ 2500 to 3000 PSI ■ 20 HP

MODEL	PART NO.	GPM	PSI	HP	VOLT/PH	AMPS	FUEL	BTU/HR	PUMP MODEL	HOSE (FT)	DIMENSIONS (LXWXH)	SHIP WT (LBS)
5730SS	1.109-658.0	8.0	3000	20	230/3	44	Oil*	768,000	HX9536L.2	50	51"x31"x63.4"	1,471
5732SS-208	1.109-654.0	8.0	3000	20	208/3	55	NG	720,450	HX9536L.2	50	51"x31"x63.4"	1,471
5732SS	1.109-655.0	8.0	3000	20	230/3	42	NG	720,450	HX9536L.2	50	51"x31"x63.4"	1,471
5733SS	1.109-659.0	8.0	3000	20	460/3	23	Oil*	768,000	HX9536L.2	50	51"x31"x63.4"	1,471
5735SS	1.109-656.0	8.0	3000	20	460/3	21	NG	720,450	HX9536L.2	50	51"x31"x63.4"	1,471
5736SS	1.109-657.0	8.0	3000	20	575/3	16	NG	720,450	HX9536L.2	50	51"x31"x63.4"	1,471
5832SS	1.109-651.0	9.5	2500	20	230/3	42	NG	939,890	HX1036L.2	50	51"x31"x63.4"	1,471
5832SS-208	1.109-650.0	9.5	2500	20	208/3	48	NG	939,890	HX1036L.2	50	51"x31"x63.4"	1,471
5835SS	1.109-652.0	9.5	2500	20	460/3	21	NG	939,890	HX1036L.2	50	51"x31"x63.4"	1,461
5836SS	1.109-653.0	9.5	2500	20	575/3	16	NG	939,890	HX1036L.2	50	51"x31"x63.4"	1,471

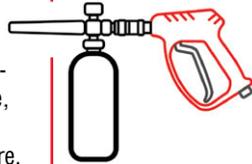
*Oil-fired models are not supplied with a fuel tank

DETERGENTS



To clean like a pro, you need to include detergents. Hotsy offers a full line of detergents for cleaning grease, dirt, road grime, aluminum, sanitation and so much more. Our detergents help you clean faster and save money.

PARTS & ACCESSORIES



Clean faster and more efficiently with pressure washer accessories like flat surface cleaners and turbo nozzles.

SERVICE



Hotsy factory-trained technicians keep your equipment running with on-site or in shop maintenance and tune-ups. Plus, we repair all brands.



The Pressure Washer The Pros Use.
EST. 1970

HOTSY.COM

Tel: 800.525.1976

Fax: 888.880.9631

Email: info@hotsy.com

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NOTE: We are constantly improving and updating our products. Consequently, pictures, features & specifications in this brochure may differ slightly from current models. Flow rates & pressure ratings may vary due to variances allowed by manufacturers of our machine components. We meet the CETA testing specs for machine performance at +_10% and in some cases are tighter within +_ 5% of listed specifications.

Specifications & product descriptions subject to change without notice. Hotsy's manufacturing facilities have established and apply a quality and environmental management system to be ISO 9001:2008 and ISO 14001:2001 certified.

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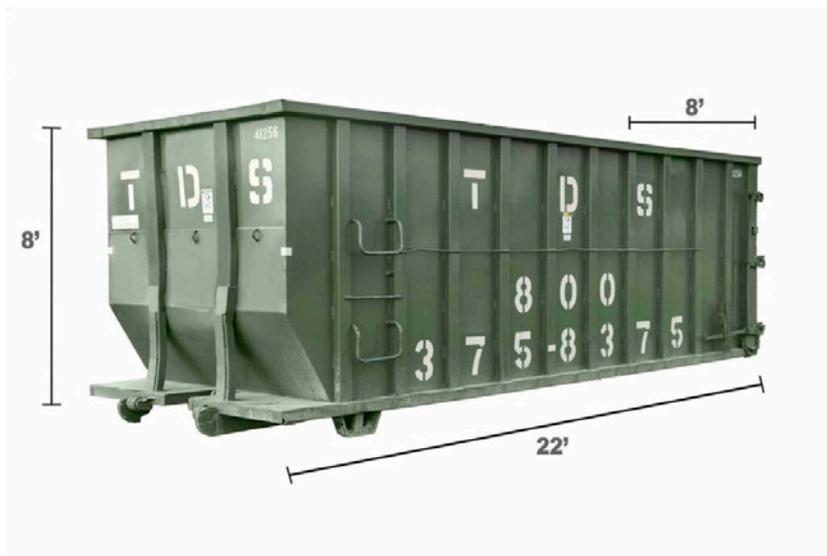
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Contact Us (<https://www.texasdisposal.com/contact/>)



40-Yard Dumpster Dimensions

40-yard dumpsters get their name from being able to typically hold up to 40 cubic yards of debris. The TDS 40-yard dumpsters are **22 feet long, 8 feet wide and 8 feet tall**. These dumpsters work great for both large-scale commercial and/or residential projects. Please note that dumpster sizes from other manufacturers and disposal services may vary.



40-Yard Dumpster Rental Price

The cost of renting a 40-yard dumpster will always vary based on your location, the type of debris you're throwing away, the weight of the debris, and how long you plan on keeping the rental. To get your quote, please contact our Customer Care team at **(800) 375-8375** (tel:+18003758375) or **contact us here** (<https://www.texasdisposal.com/your-business/roll-off-dumpsters/request-a-quote-for-roll-offs/>). What does the quote include?

Request a Quote



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40-Yard Dumpster Weight Limit

TDS's 40-yard roll-off dumpsters have a weight limit of 12,000-16,000 pounds. Please keep in mind that the type of material you're throwing away and the distance driven to your location may affect the maximum weight allowed in your load.

[Request a Quote](#)

New! Roll-Off Work Completion – Fast. Reliable. Next-Business-Day.

Need a haul fast? We've got you covered.

Our new Roll-Off Work Completion service guarantees that existing commercial customers get their roll-off dumpster hauls completed by the next business day (excluding Saturday) — **just get your request in by 3 pm, and we'll handle the rest.**

[Contact Us](#)



SCHIER

Sewer Viewer™ 11-5/8 in. Plain End Plastic Sampling Port

Part #S806500101 | Item #8368250 | Manufacturer Part #8065-001-01

★★★★★ (0) [Write a Review](#)



\$561.37

Width: 11-5/8 in

1

[Add to Cart](#)

How to get it:

Pick Up Available Nearby
0 in Wichita, KS
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Shipping Available
Available for immediate shipment



Product Details

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Specifications

Application: Indoor, Outdoor

Collection: Sewer Viewer™

End Connection 1: Plain End

End Connections: Plain End

Fitting Size 1: 4 in

Fitting Size 2: 6 in

Fitting Sizes: 4 in x 6 in

Height: 14-1/2 in

Length: 24-1/4 in

Material: Plastic

Material Type: HDPE, Polyethylene

Product Type: Sampling Port

Reviews 0

Q&A [View All](#)

References

REFERENCES

Aqua-Zyme Disposal Systems, Inc. Available at www.aqua-zyme.com . Accessed 1/2026