

GRINDER PUMP PURCHASE

Acton Municipal Utility District
6420 Lusk Branch Court – Granbury, Texas 76049-2035 – 817-326-4720

Service Address

Responsible Person

Phone

Date

The following persons are authorized to pick up Grinder Pump:

Plumber

Electrician

Contractor

The following Items have been received:

- Tank
- Lid
- Equalizer
- Cable
- Hose Assembly
- Alarm Box
- Grinder Pump
- Serial Number: _____
- Pump Stand
- Fittings Bag
- Instructions

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Picked up by

Date

Print Name

Verified by AMUD Representative

Date

Picked up by

Date

Print Name

Verified by AMUD Representative

Date

**AMUD WILL NOT MAINTAIN OR BE RESPONSIBLE FOR
GRINDER PUMPS NOT INSTALLED TO AMUD SPECIFICATIONS.**

Validate back of page or attach receipt

AGREEMENTS: AMUD GRINDER PUMP

1. Installation of Sewer Service Equipment

- 1.1. It is the responsibility of the owner to install the grinder pump system to the Acton Municipal Utility District Code.
- 1.2. All basins will be installed outside and buried in the existing terrain. No basin will be allowed to be installed under any structure or set on top of the ground. Top of basins will be installed to a minimum of 3" above final grade.
- 1.3. Discharge lines shall be no less than 1 ¼" in diameter and be schedule 40 PVC pipe. All bends will be no greater than 45°, No 90° bends will be allowed.
- 1.4. All discharge lines that are to go under a driveway, sidewalk, retaining wall, or any other permanent or semi-permanent structure shall be sleeved with a minimum of 3" schedule 40 PVC pipe, with no bends. All lines shall be inspected before being covered.
- 1.5. All inlets and outlets shall be watertight joints. 4" inlet pipe shall be a minimum of 30" from the bottom of the basin to the center of the inlet pipe.
- 1.6. Grinder pump control panel (240 volts) shall be installed a minimum of 48" above ground level on an outside wall or approved device. No other electrical connections are allowed inside the panel.
- 1.7. Pump supply cable shall be installed inside ¾" flexible conduit with liquid tight connectors. Electric supply to control panel requires 30 amp double pole breakers, 10-3 with ground wiring and an electrical disconnect located within 5 ft of control panel.
- 1.8. Conduit shall be sealed with duct seal.
- 1.9. Grinder Pumps with control floats will require two (2) 2" conduits from the wet well to the control box; one conduit for electric and one conduit for control floats.
- 1.10. A sewer relief valve shall be installed at sewer clean-out.
- 1.11. **The District requires a FINAL INSPECTION of the entire system before the system can be put into operation.** All piping into and out of the grinder pump basin, including the 1 ¼" discharge line to the main shall be left uncovered until inspection has been made by a representative of the District. Please call (817) 326-4720 to schedule an inspection. An inspection tag will be placed on the panel box stating the status of the system: Rejected, Hold or OK.

2. Ownership and Maintenance of the Sewer Service Equipment

- 2.1. The District will own and maintain the equipment inside the tank, including the grinder pump.
- 2.2. The Customer will own and maintain service lines from cutoff valve at street to the home as well as the grinder pump tank, control panel and cables associated with grinder pump system.

3. Easement

- 3.1. Customer hereby grants to the District, its employees, agents and representatives, and any other entity with whom the District contracts for the installation, maintenance, repair or inspection of the Sewer Service Equipment, a right of way easement across the Customer's property with the right of ingress and egress for the purpose of installing, maintaining, repairing, removing, reinstalling and inspecting (*alternate: to place, construct, operate, repair, maintain, rebuild, relocate, and replace*) the Sewer Service Equipment.

4. Charge for Repairs of Sewer Service Equipment

- 4.1. **The customer is responsible for any charges incurred by the District in repairing the Sewer Service Equipment as a result of misuse, injury or damage by any action of the customer, or any of its guests, invitees or residents on the Property.**
- 4.2. Misuse, injury or damage will void the Districts responsibility to maintain the grinder pump. Misuse, injury or damage is defined as, but not limited to:
 - Introduction of material harmful to the wastewater collection system, ie:
 - glass, metal, shells, rock, cat litter, diapers, rags or cloth, sanitary napkins or tampons, explosives, flammable material, lubricating oil and grease, strong chemicals, gasoline products.
 - Dumping storm drainage from gutters into basin or allowing runoff into basin.
 - Covering basin or maintaining less than 3" above final grade clearance.

Primary Customer Signature

Joint Customer Signature

AMUD
Representative

Service Address: _____ Granbury, Texas 7604__ Today's Date: ____ / ____ / ____

Adopted changes 2011-06-20

CHECKLIST: GRINDER PUMP – PLUMBING

The following list of requirements must be completed for all grinder systems and the plumbing contractor must sign off this document on before the District will perform a final inspection. Failure to properly install system to these standards will result in additional inspection fees.

Note: All boxes below must be checked even if an item does not apply.

- Grinder basin must be set at a depth so as to provide a minimum of 3" above final grade.
- Basin will have a minimum of 240 lbs of concrete around the base of the basin so as to prevent floating, settling, or shifting.
- Basin shall be placed on a level concrete pad – minimum 4" thick.
- If installation of basin to the proper depth cannot be met the plumber must contact the District for approval.
- Inlet pipe from residence must enter basin at a height so as to provide a minimum of 30" clearance from the bottom of basin to center of the inlet pipe.
- All piping, hubs, etc., leaving or entering tank will be sealed with a waterproof silicone type material to prevent leakage.
- The District will supply hubs for 4" sewer connections to the basin; these hubs must be sealed with a waterproof sealant.
- Discharge pipe leaving tank and continuing to tap at sewer main will be no less than 1 ¼" schedule 40 PVC pipe. Have no 90-degree bends and be buried to depth of at least 12".
- Any discharge line running under any concrete structure must have a sleeve pipe of at least 3" and contain no other piping in this line.
- If an extension to the grinder basin is required to meet specs, the contractor must pay for and have the plumber install to District specifications.
- The discharge line running from the basin to the street must be properly bedded with a sand backfill, no rocks will be allowed in the discharge ditch line.
- A line inspection must be called for prior to any final inspection request. If a line inspection has not been made and the lines are covered without approval, the plumbing contractor will be required to uncover the lines for inspection.
- There must be a working outside hose bib at each residence to provide the District a means of filling a tank for final inspection and for future cleaning when needed.

Once the line inspection has been made and all of the above requirements have been met and checked off the plumbing contractor must sign below and return this form to the AMUD Office or given to inspector. By signing this document you are stating that plumbing has been installed in accordance with stated construction practices and in compliance with District LPWWS Policy and Procedures.

License #: _____

Signed this day by _____ Date _____

Service Address: _____

CHECKLIST: GRINDER PUMP – ELECTRICAL

The following list of requirements must be completed for all grinder systems and the electrical contractor must sign off this document on before the District will perform a final inspection. Failure to properly install system to these standards will result in additional inspection fees.

Note: All boxes below must be checked even if an item does not apply.

- The electrical contractor will be responsible for providing an electrical disconnect for the grinder system to be located within 5' of the grinder pump control panel.
- Grinder panel to be mounted on outside wall of structure or suitable means of support, if not mounted on structure wall or building.
- Electrical panel must be mounted at least 4' above grade and no farther than 20' from grinder basin.
- Conduit from disconnect and from panel to grinder basin will be either schedule 40 electrical PVC pipe, or liquid tight flexible conduit, PVC pipe will contain sweeps, no water type fittings. Liquid tight connectors are required if using flexible type conduit.
- All piping or conduit from panel to the basin must be buried at least 18".
- Electrical contractor is required to pull all wiring from the basin to the electrical panel. All wiring is to be left intact; if any wires are cut the electrical contractor shall be required to replace wiring.
- No splicing is allowed.
- Electrical contractor is responsible for supplying the power to the panel in accordance with all NEC codes.
- Electrical contractor shall complete all electrical connections inside panel.
- No other wiring or circuits are allowed inside or passing through electrical panel.
- A four conductor circuit is required as power for the electrical panel.

Once the line inspection has been made and all of the above requirements have been met and checked off the electrical contractor must sign below and return this form to the AMUD Office or given to Inspector. By signing this document you are stating that electrical has been installed in accordance with stated construction practices and in compliance with District LPWWS Policy and Procedures.

License #: _____

Signed this day by _____ Date _____

Service Address: _____

LOW PRESSURE WASTEWATER SYSTEM (LPWWS) POLICY AND PROCEDURES

1. NEW LPWWS ADDITIONS TO AMUD:

- 1.1. Specific Board of Directors approval is required for additional LPWWS systems to be incorporated into AMUD's present or future systems. LPWWS will be considered for approval only when conditions make a conventional gravity collection system impractical. An engineering report justifying the use of LPWWS versus a conventional gravity system shall be submitted for consideration by the Board. The report shall contain an overall system design prepared and stamped by a Civil Engineer registered in the State of Texas. The EPA's "Manual of Alternate Wastewater Collection Systems" shall be used as the basis for design.
- 1.2. AMUD reserves the right to reject any request for a new LPWWS.
- 1.3. If Board approval is obtained, detailed construction plans and specifications shall be prepared and submitted for AMUD review and approval prior to the commencement of construction.
- 1.4. Minimum main collection line size shall be two inch.

2. CONNECTION TO LPWWS:

- 2.1. **Each residential and commercial unit served by a LPWWS shall be equipped with sewer grinder facilities purchased from the District.**
- 2.2. **The District has sole discretion as to which grinder system shall be used.**
- 2.3. A single grinder system is required for each single-family residence and each living unit of multi family residences or complexes.
- 2.4. Sewer grinder systems for commercial units will be sized with respect to anticipated sewer flows. Cost will vary depending upon type of grinder system required. For commercial units, grease traps and pre-treatment systems may be required at the discretion of the District.
- 2.5. Sewer grinder system material charges are due and payable at the time such material is required for installation. No material will be released until the applicable charges are paid in full.
- 2.6. Initial installation of each grinder system is the responsibility of the owner/builder in accordance with the requirements of the District and applicable State and Local codes. Grinder control panels must be located exterior to any building and be accessible to District employees for service purposes. Final inspection and approval by a District employee or representative is required to obtain sewer collection service. Inspection of grinder systems will be performed by the District personnel only after required checklists are returned to District office or given to the inspector at time of inspection. Additional inspections required due to systems not meeting District specifications will be charged additional inspection fees.
- 2.7. Electrical service for operating the sewer grinder shall be provided by the customer through a dedicated 240 volt 20 amp circuit breaker which has no other connections either external or internal to the grinder control panel.

3. MAINTENANCE:

- 3.1. Maintenance and repairs for sewer grinders will be provided by the District. Grinder systems must be purchased from the District office.
- 3.2. Maintenance of the yard line from the property line to the grinder is the responsibility of the property owner.
- 3.3. If the grinder system requires repair as a result of negligence or misuse by the Owner, the District will repair such sewer equipment and the Owner will be required to reimburse the District for all related costs.

4. INSTALLATION OF GRINDER PUMP BASINS AND PANELS:

- 4.1. It is the responsibility of the owner/contractor to install the grinder pump system to AMUD specifications. Installation of all components of the grinder pump system shall be done by or under the supervision of a licensed master plumber and electrician.
- 4.2. Basins – All basins shall be installed outside and buried in the existing terrain. No basin will be allowed to be installed under any structure or set on top of the ground. All basins shall be installed to a minimum of 3" above final grade. For installations requiring an extension to meet grade requirements, contact the District office to purchase this item.
- 4.3. Discharge Line – Shall be no less than 1 ¼" in diameter and be schedule 40 PVC pipe. All bends shall be no greater than 45 degree. 90 degree bends are not allowed!!! Discharge line and all bends shall be left uncovered for inspection. All discharge lines that will be under any wall or driveway shall be sleeved with a minimum of 3" schedule 40 PVC pipe.
- 4.4. NOTE: A line inspection must be called for prior to any final inspection request. If a line inspection has not been made, and the lines are covered without approval, the District will require the lines to be uncovered for inspection.

5. **Inlets/Outlets** – All inlets and outlets shall be watertight joints. Inlet pipe shall be a minimum of 30" from the bottom of the tank to the center of the inlet pipe.

- 6. Grinder Pump Control Panel 240 Volt/Single Phase** – Shall be a minimum of 4’ above final grade and installed on an outside wall or approved device, no farther than 20’ from grinder basin. Each grinder pump shall have a separate 240 volt/single phase water proof type disconnect switch box located within 5 feet of grinder pump control panel furnished by the contractor/builder or owner. Grinder pump control panel is not to be used as a junction box or altered in any way. No outside lights, irrigation timers or any other connection is allowed inside panel.
- 7. Additional guidelines are included in the attached Plumbing and Electrical Checklists**, which must be completed and signed by the responsible master plumber and electrician, then returned to the AMUD office or given to the inspector at time of inspection before a final inspection will be completed. A minimum of three (3) working days notice must be allowed in scheduling the final inspection. Accommodation must be made to allow final inspection to occur during normal working hours. In conjunction with final inspection, AMUD will install the pump assembly and conduct a start-up of the system.

INSPECTION REQUIREMENTS: Water/Sewer Connection

1. GENERAL TAP INFORMATION

- 1.1. Tap fees are to be paid when service agreement is filled out.
- 1.2. Each dwelling or commercial unit shall have a single water and sewer tap.
- 1.3. Taps are made on first come basis. Every attempt will be made to make water and sewer tap within 14 days of signed contract.
- 1.4. 48 hours notice is required for locates and in no case will tap be made prior to locate being done.
- 1.5. "General Development Policy and Construction Standards" manual is available upon request.

2. GENERAL INSPECTION INFORMATION

- 2.1. When the facility, to be inspected, is in place but prior to any backfill, the Developer/Contractor shall request an inspection of the installation by the District.

Requests for inspection must be made at least 24 hours in advance.

- 2.2. Inspections will not be made after 4:00pm nor on Saturdays, Sundays or Holidays. Backfill shall be completed immediately after installation is approved.

3. ROUGH-IN INSPECTION REQUIREMENTS

- 3.1. Residences or commercial buildings constructed within the District must be connected to the District Water system. Each dwelling unit or commercial establishment shall have a single metered connection.
- 3.2. Visual examination of joints and lay of pipe is to be performed prior to backfill.
- 3.3. All backfill used is to be clean and free of debris and rock.
- 3.4. There shall not be any water connection to any condensing, cooling, industrial process, swimming pool, or any other system of non-potable water usage unless the connection is made through an approved backflow device.
 - 3.4.1. All sill cocks, threaded faucets or any other outlet to which a hose could be connected, shall be equipped with an approved hose bib vacuum breaker. Including any temporary construction setups.
- 3.5. A courtesy Valve is to be installed within 12" of meter, on customer side of meter.

4. CSI Inspection requirements:

- 4.1. CSI Inspection is required by the Texas Commission on Environmental Quality, (TCEQ), on all new connections.
- 4.2. No direct connection between the public drinking water supply and a potential source of contamination exists. Potential sources of contamination are isolated from the public water system by an air gap or an appropriate backflow prevention assembly in accordance with the state plumbing regulations. Additionally, all pressure relief valves and thermal expansion devices are in compliance with the state plumbing codes.
- 4.3. No cross-connection between the public drinking water supply and a private water system exists. Where an actual air gap is not maintained between the public water supply and a private water supply, an approved reduced pressure-zone- backflow prevention assembly is properly installed and a service agreement exists for annual inspection and testing by a certified backflow prevention device tester.
- 4.4. No connection exists which would allow the return of water used for condensing; cooling or industrial processes back to the public water supply.
- 4.5. No pipe or pipe fitting which contains more than 8.0% lead exists in private plumbing facilities installed on or after July 1, 1998.
- 4.6. No solder or flux, which contains more than 0.2% lead exists in private plumbing facilities, installed on or after July 1, 1998.
- 4.7. No plumbing fixture is installed which is not in compliance with at state approved plumbing code.

5. Hose Bib Inspection requirements:

- 5.1. All sill cocks, threaded faucets or any other outlet to which a hose could be connected, shall be equipped with an approved hose bib vacuum breaker.

6. Enforcement:

- 6.1. No water connections are to be made from contractor to homeowner without proper permits and inspections being completed and filed.

GRINDER PUMP USER INSTRUCTIONS

Your residence is serviced by a low-pressure sewer system (grinder pump). Although Acton Municipal Utility District (AMUD) will maintain the grinder pump, the service lines from the cutoff valve from the street to your home as well as the grinder pump tank, control panel and cables are the customer's responsibility and there are some important facts you need to be familiar with to prevent a possible backup in your home.

General Information:

In order to provide you with suitable wastewater disposal, your home is served by a low pressure sewer system. The grinder pump is the key element in this system. The tank collects all solid materials and effluent from the house. The solid materials are then ground to a small size suitable for pumping as slurry with the effluent water. The grinder pump generates sufficient pressure to pump this slurry from your home to the wastewater treatment receiving line and/or disposal plant. With proper care and by following a few guidelines, your grinder pump will give you years of dependable service.

Ownership and Maintenance of Equipment:

AMUD will own and maintain the grinder pump. The customer will own and maintain service lines from the cutoff valve at street to the home as well as the grinder pump tank, control panel and cables.

Easement:

Customer grants to AMUD, its employees, agents and representatives, and any other entity with which the District contracts, a right of way easement across the customer's property with the right of ingress and egress for the purpose of servicing sewer equipment.

Care and Use of your Grinder Pump:

The grinder pump is capable of accepting and pumping a wide range of materials. Regulatory agencies advise that the following items should not be introduced into any sewer, either directly or through a kitchen waste disposal unit:

- Glass
- Metal
- Seafood Shells
- Diapers, Paper Towels, Socks, rags or cloth
- Plastic objects, (toys, utensils, ect)
- Sanitary Napkins or tampons
- Explosives
- Flammable material
- Lubricating oil and grease
- Strong Chemicals
- Gasoline
- Rock, Cat litter

Basin must maintain a minimum clearance of 3" above final grade or landscaping. Basin will not be covered.

Charge for repairs on sewer service equipment:

If the sewer service equipment requires repair as a result of misuse, injury or damage by any action of the customer, or any of its guest or residents on the property, AMUD will repair such sewer equipment and the customer will be responsible and shall reimburse AMUD for any charge incurred by AMUD in repairing such sewer service equipment.

Periods of Disuse:

If your home or building is left unoccupied for longer than a couple of weeks, perform the following procedure:

- Purge the system: Run clean water into the unit until the pump activates. Immediately turn off the water and allow the grinder pump to run until it shuts off automatically.
- **Caution: Do not disconnect power to the unit.**

Power Failure:

Your grinder pump cannot dispose of wastewater without electrical power. If electrical power service is interrupted, keep water usage to a minimum.

Pump Failure Alarm:

Your grinder pump has been manufactured to produce an alarm signal (120 volt) in the event of a high water level in basin. AMUD must see that the alarm signal provided is connected to an audible and/or visual alarm in such a manner as to provide adequate warning to the user that service is required. During the interim prior to the arrival of an authorized AMUD support crew, water usage must be limited to the reserve capacity of the tank.

For service, please call AMUD at (817) 326-4720 during normal business hours 8:00 to 4:30 Monday through Friday. Call our after hours and emergency number at (817) 573-2235 at any other time.

Additional Grinder pump information can be found on our web site www.amud.com.