



**W A S T E W A T E R**

**T R E A T M E N T   S Y S T E M S**

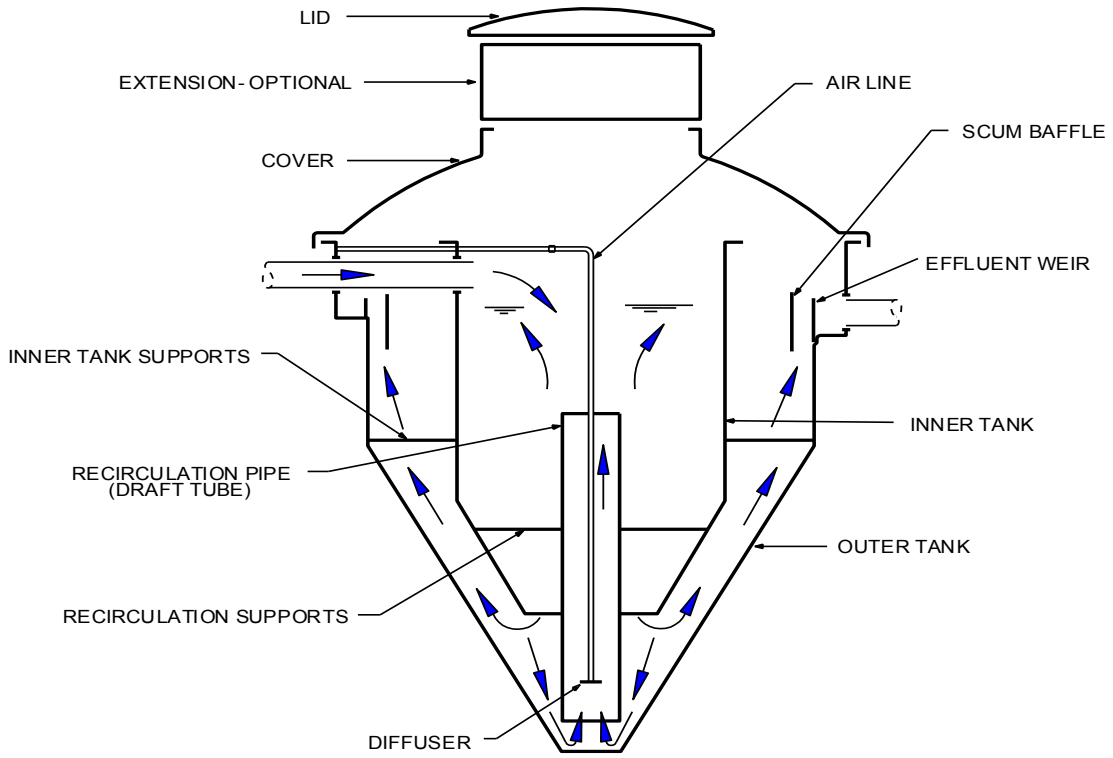
**PROCEDURES FOR**

**ASSEMBLY AND INSTALLATION**

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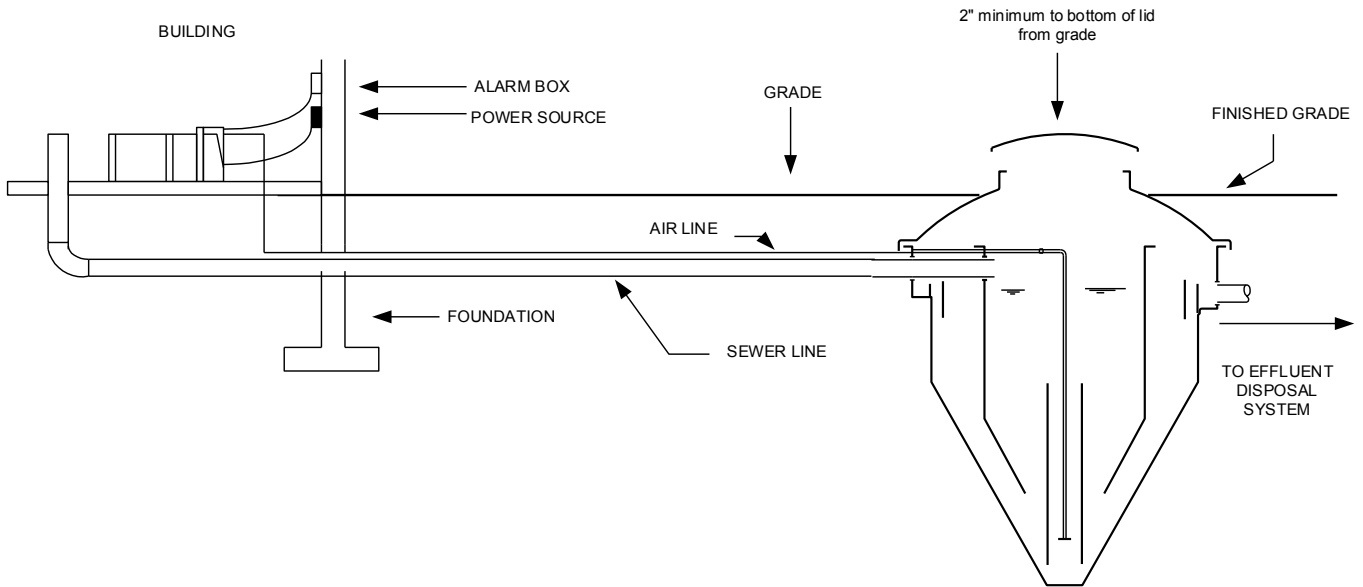
# NAYADIC TANK COMPONENTS

Fig. 1.1



# TYPICAL INSTALLATION (Cross Section)

Fig. 1.2



NAYADIC

## Procedures for Assembly and Installation

Unless otherwise noted, the instructions within this manual may be used for all models (M6-A, M8-A, M1050-A, M1200-A and M2000-A) of the **NAYADIC** Waste Treatment plant.

*The installation must comply with all state and local regulations.*

### **SECTION 1.0      SITE PREPARATION**

#### 1.10 LOCATION

1.11 The site plan should show the desired location of the waste treatment plant and the location of the effluent disposal system. **CAUTION:** Check to make sure the site plan accurately reflects the conditions actually existing at the site and that all required set-backs (i.e., to wells, property lines, etc.) are being met.

#### 1.20 GRADE AND GROUND COUNTOUR

1.21 Position the waste treatment plant so that surface water and effluent will drain to a lower grade under all known conditions.

#### 1.30 COVER EXPOSURE

1.31 The access cover must be exposed at all times to permit the system to function properly and to allow for routine maintenance. There should be a minimum of (2) two inches between the bottom of the lid and the finished grade (refer to Fig. 1.2A and 1.2B).

#### 1.40 BUILDING SEWER LINE

1.41 Carefully check all elevations to insure that the building sewer will have the proper fall (slope) to meet the inlet of the **NAYADIC** and maintain the grade requirements to insure proper exposure of the cover. The elevation of the outlet should also be checked to insure proper elevation of the effluent disposal system.

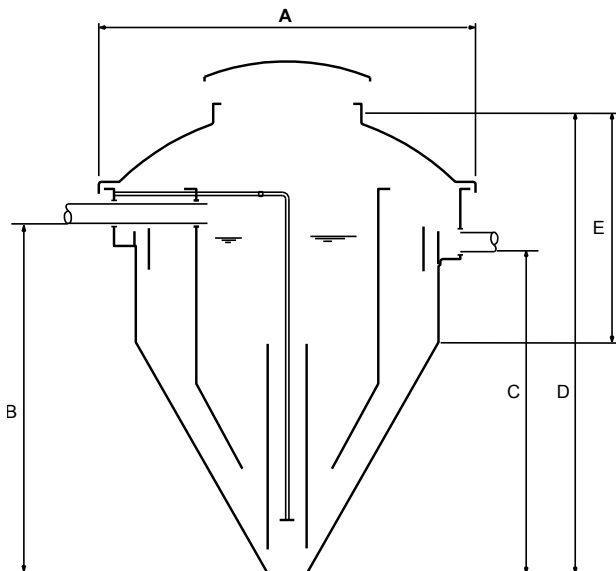
#### 1.50 EXCAVATION PREPARATION

1.51 Clear an area at least two (2) feet larger than the dimensions of the **NAYADIC** system which is to be installed.

- 1.60 EXCAVATION (Refer to Fig. 1.3)
- 1.61 Determine the required depth of the excavation based upon the elevation of the invert of the inlet sewer line (B) or the elevation of the finished grade (D). These dimensions are given for each model in Figure 1.3. **NOTE: If the distance from the finish grade elevation to the bottom of the excavation exceeds the dimension (D) shown in Figure 1.3, a riser will be required (refer to Section 2.40).**
- 1.62 Excavate a hole approximately two (2) feet wider than the diameter (A) of the plant as specified in Fig. 1.3. The hole should be dug to the depth where the side of the tank begins to taper (E). **NOTE: If a riser will be required (refer to Section 1.61.), then the hole should be dug to the additional depth to allow for the riser.**
- 1.63 To complete the excavation, dig a single trench, approximately 3' wide in the center of the excavation. The trench should be dug to the depth at which the bottom of the tank will rest as indicated in column D of Fig. 1.3. To allow for the tapered sides, the trench should be gradually widened from approximately 3' at the bottom to a width equal to the diameter (A) of the tank (refer to Fig. 2.1).
- 1.64 Care should be taken to not dig too large (or too deep) of a hole. If the hole is dug too deep, fill in the bottom of the excavation with a minimum of 6" of sand, pea gravel or crushed stone to the required bottom depth. **This material should be well compacted to prevent settling of the tank when it is filled with water.**

### NAYADIC TANK DIMENSIONS

Fig. 1.3



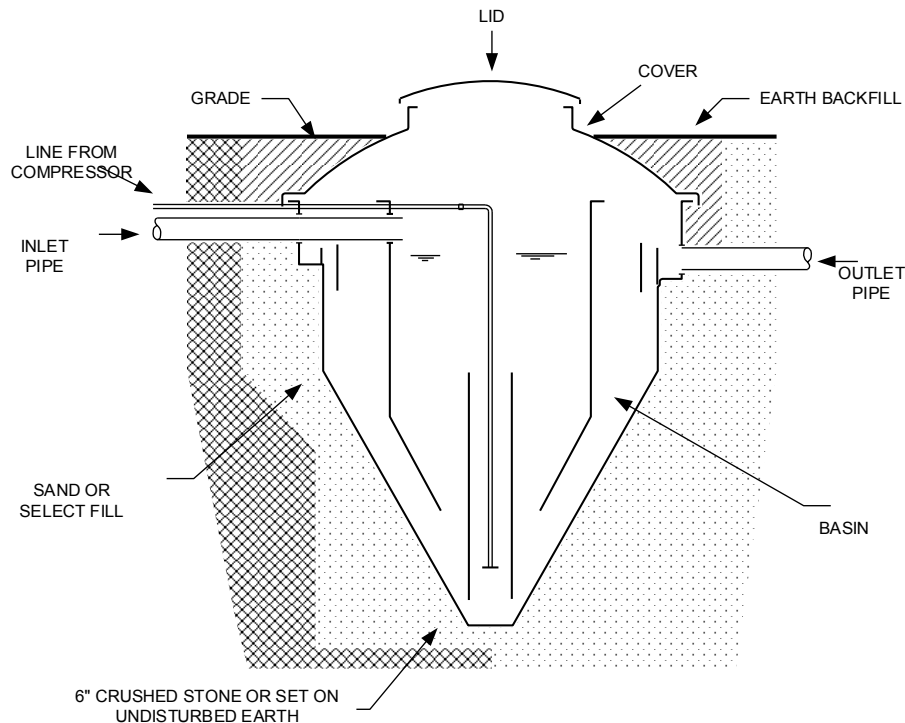
MODEL NUMBERS	DIMENSIONS				
	A	B	C	D	E
M6-A	73	65.5	62	86	42
M8-A	82	72.5	69	99	50
M1050-A	82	81	77	107	46
M1200-A	94	89	86	119	71
M2000-A	124 x 104	96.5	97	128	39

- A = OUTSIDE DIAMETER
- B = INLET INVERT FROM BOTTOM OF EXCAVATION
- C = OUTLET INVERT FROM BOTTOM OF EXCAVATION
- D = FINAL GRADE FROM BOTTOM OF EXCAVATION
- E = FINAL GRADE TO BEGINNING OF TAPER

- 2.10 SETTING THE TREATMENT PLANT (Refer to Fig. 2.1)
- 2.11 Rig the basin to lift by tying a rope around the inlet coupling and the outlet pipe. **CAUTION: The model M2000-A is supplied with 4 lifting hooks which should be used to attach the rope.**
- 2.12 Slowly lower the *NAYADIC* basin (bottom section of tank) into the hole until the bottom is resting on undisturbed soil or appropriate bedding material. Make sure the inlet pipe is aligned with the building sewer.
- 2.13 Before filling with water or backfilling around tank, carefully re-check elevations and grades of inlet, outlet and building sewer. If elevations are not correct, remove tank and dig out additional material or add necessary amount of bedding material (refer to Section 1.64).
- 2.14 When the tank basin is properly set in the hole, begin filling the tank with water. Once there is approximately 3' of water in the tank, place the cover over the basin to prevent the accidental spillage of dirt into the tank and then backfill around the basin to a depth of 3', using selected fill or sand. **It is important that the fill material be compacted evenly around the basin to prevent uneven settling after the backfilling is completed. With sandy fill materials, it is advisable to "water in" the fill as it is placed in the excavation.**

### BACKFILLING PROCEDURES

Fig. 2.1

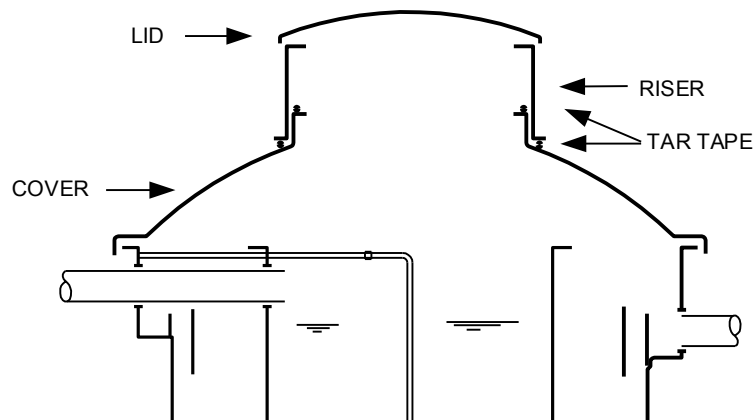


- 2.15 When the fill material reaches a depth of approximately 1' below the top of the tapered part of the basin, discontinue backfilling and level the tank (refer to Section 2.20).
- 2.20 LEVELING THE WASTE TREATMENT PLANT  
**CAUTION:** The plant must be level to insure proper aeration and clarification.
- 2.21 Remove the cover and plug the 4" outlet pipe.
- 2.22 Fill the effluent trough with water until it flows over the top of the effluent weir.
- 2.23 Level the tank until the surface of the water in the trough is even with the effluent (outer) weir around the entire circumference of the tank.
- 2.24 **(Alternate leveling method)** Place a long (4' or greater) level across the top flange of the outer tank (basin). Check this at several locations and adjust the tank until it is level.
- 2.30 BACKFILLING THE TANK
- 2.31 Once the basin has been leveled, replace the cover and carefully continue backfilling with selected fill or sand until the lower (tapered) portion of the tank is backfilled. Making certain the tank is level, continue to backfill up to the outlet pipe (refer to Fig. 2.1).
- 2.32 Glue and firmly insert the inlet and outlet sewer pipes (4" Sch. 40 PVC) into their respective fittings. **CAUTION: To prevent any damage to the inlet or outlet pipes due to settling or backfilling, make sure that both the inlet and outlet pipes are set on undisturbed or firmly-packed fill material prior to final backfilling procedures.**
- 2.33 Remove the cover and install diffuser and air supply line (see Section 3.0).
- 2.34 Place cover on top of unit. In order to prevent the infiltration of ground water, silt, sand, etc. into the *NAYADIC* effluent line, it may be advisable to seal the cover to the basin using silicone caulk or tar tape. If this is done in an area with a high water table or where the system may be subject to flooding, the tank should be anchored (refer to Item 2.50). **Note: Before cover is replaced, check to insure that the basin is still level and that any accumulations of mud, sand, gravel, etc., are flushed away and pumped out. Accumulations of mud or gravel with tank bottom will prevent proper operation of the draft tube.**
- 2.35 Finish backfilling to a level approximately 2" below the access lid (refer to Fig. 2.1). When landscaping is completed, the access lid should be at least 2" above the finished grade level.
- 2.36 Finish filling the tank with water until the water begins overflowing the effluent weir.
- 2.40 (OPTION) INSTALLING A RISER (LID EXTENSION)

- 2.41 It is necessary for the access lid to be above grade to allow for routine maintenance and to prevent the entry of surface water. For deep installations, **NAYADIC** provides risers (6", 12" and 24") to bring the lid to grade. **DO NOT INSTALL SYSTEM WITH GREATER THAN 24 INCHES OF BACKFILL.**
- 2.42 To install the riser, remove the access lid from the cover.
- 2.43 Carefully remove the 2 stainless steel backplates from inside of cover.
- 2.44 Place riser over the 30" access opening of the cover. Slide the riser down as far as it will go.
- 2.45 Apply a strip of ½" tar tape or silicone sealant under the bottom flange of the riser. Check to make sure that the tar tape has properly sealed the bottom of the flange to the top of the **NAYADIC** cover. Apply a second strip of ½" tar tape or silicone on the inside of the riser as shown in Fig. 2.2.

### RISER INSTALLATION

Fig. 2.2

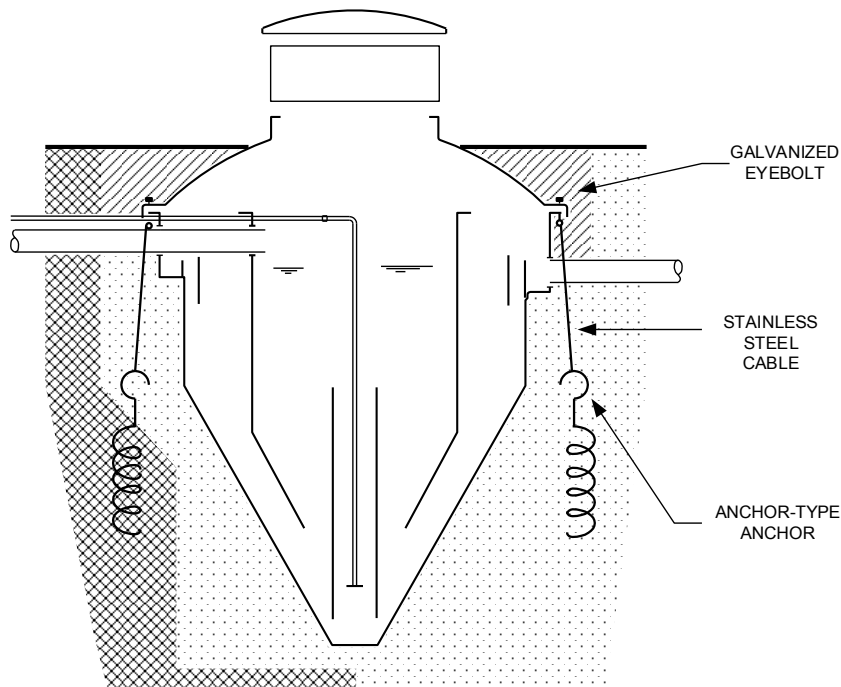


- 2.46 Place the lid on top of the riser. Using the holes in the lid as a guide, drill matching holes in the riser.
- 2.47 Remove the lid. Using stainless steel rivets, re-attach the backplates to the inside of the riser, making sure they align with the 2 drilled holes.
- 2.48 Replace access lid. Fasten with tamperproof bolts.
- 2.50 ANCHORING THE NAYADIC TANK
- 2.51 When installing the **NAYADIC** in areas with a high water table or in flood-prone areas, it may be advisable to anchor the tanks to prevent floatation or shifting. (see Fig. 2.3).
- 2.52 To anchor the tank, use four (4) ¾" galvanized steel eye bolts, four (4) 24-30" auger tie-downs, and 1/8" galvanized or stainless steel cable (minimum 500 lb test).

- 2.53 Level the tank and backfill to approximately 12" below the inlet pipe.
- 2.54 Place the cover on the basin.
- 2.55 Drill (4)  $\frac{3}{8}$ " holes through the outer flanges of both the cover and basin. These holes should be drilled opposite the four inner tank support brackets.
- 2.56 Place a 1" washer on the eyebolt and insert into the hole previously drilled in the flange so that the "eye" is on the bottom. Place a second 1" washer on the eyebolt (top of flange) and fasten with nut. Do the same for the remaining 3 holes.
- 2.57 Screw each of the auger tie-downs into the ground below the 4 eyebolts. Care should be taken to insure the anchors are installed in either undisturbed soil or well-compacted backfill.
- 2.58 Using the stainless steel cable, fasten the four eyebolts to the respective tie-down. (Option: The cable may be fastened to concrete bumper guards which are buried in surrounding soil at a depth of at least 4' below grade.)
- 2.59 Finish backfilling around unit.

### PROCEDURE TO ANCHOR NAYADIC

Fig. 2.3



## SECTION 3.0 INSTALLATION OF COMPRESSOR, AIR SUPPLY LINE, AND DIFFUSER

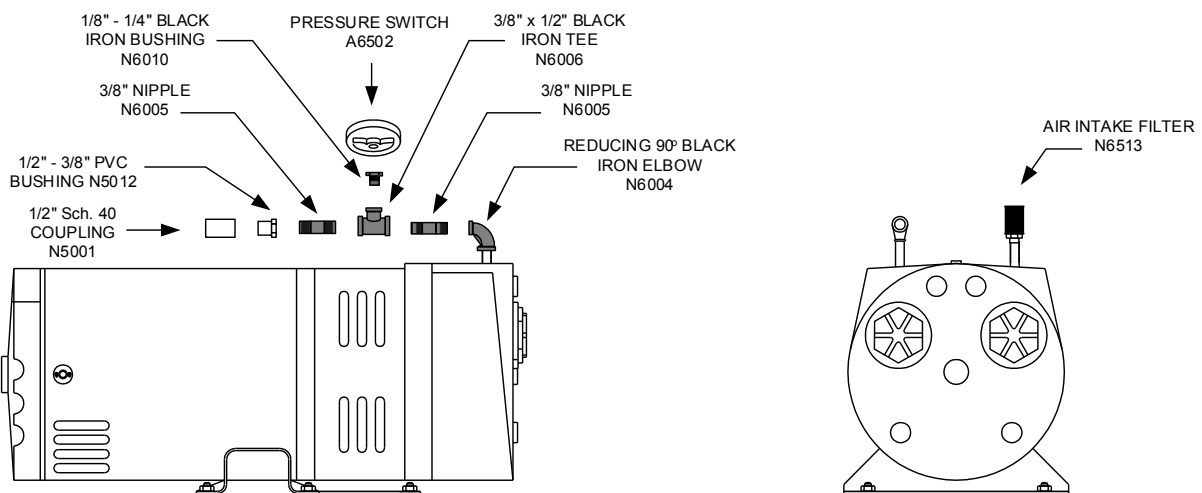


### 3.10 ASSEMBLING THE COMPRESSOR

- 3.11 Check the compressor model number to insure the proper compressor is supplied with **NAYADIC** plant.
- 3.12 Open carton and remove compressor, base plate (foot support), air filter package and fittings ( $\frac{3}{8}$ " nipple,  $\frac{3}{8}$ " x  $\frac{1}{4}$ " reducing elbow,  $\frac{3}{8}$ " x  $\frac{1}{2}$ " threaded bushing,  $\frac{1}{2}$ " female adapter, and  $\frac{3}{8}$ " threaded tee with reducing bushing).
- 3.13 Attach the plate according to directions provided with compressor. Make sure the base plate is properly attached so that the compressor does not tip.
- 3.14 Remove plug from air intake opening and screw in air filter.
- 3.15 Remove plug from  $\frac{1}{4}$ " nipple (air discharge). Attach  $\frac{1}{4}$ " x  $\frac{3}{8}$ " reducing elbow. Screw  $\frac{3}{8}$ " threaded nipple into elbow. Next, screw the  $\frac{3}{8}$ " tee onto the nipple and screw a second  $\frac{3}{8}$ " nipple onto the other end of the tee. **Note: There is a reducing bushing screwed into the third opening of the tee. This will be for the attachment of the pressure switch.** To assure there is no leakage of air, use pipe dope or similar product on all threaded connections.
- 3.16 If rigid  $\frac{1}{2}$ " PVC pipe is to be used for the air supply line to the treatment plant (standard), a  $\frac{3}{8}$ " (threaded) x  $\frac{1}{2}$ " (slip) PVC reducing bushing should be screwed onto the  $\frac{3}{8}$ " nipple. A  $\frac{1}{2}$ " x  $\frac{1}{2}$ " Sch. 40 PVC coupling should then be glued onto the bushing in order to attach the  $\frac{1}{2}$ " PVC pipe for the airline. (Refer to Fig. 3.1A) *The compressor is now ready to attach the PVC airline.*

### COMPRESSOR/AIRLINE ASSEMBLY (Option: PVC Airline)

Fig. 3.1A

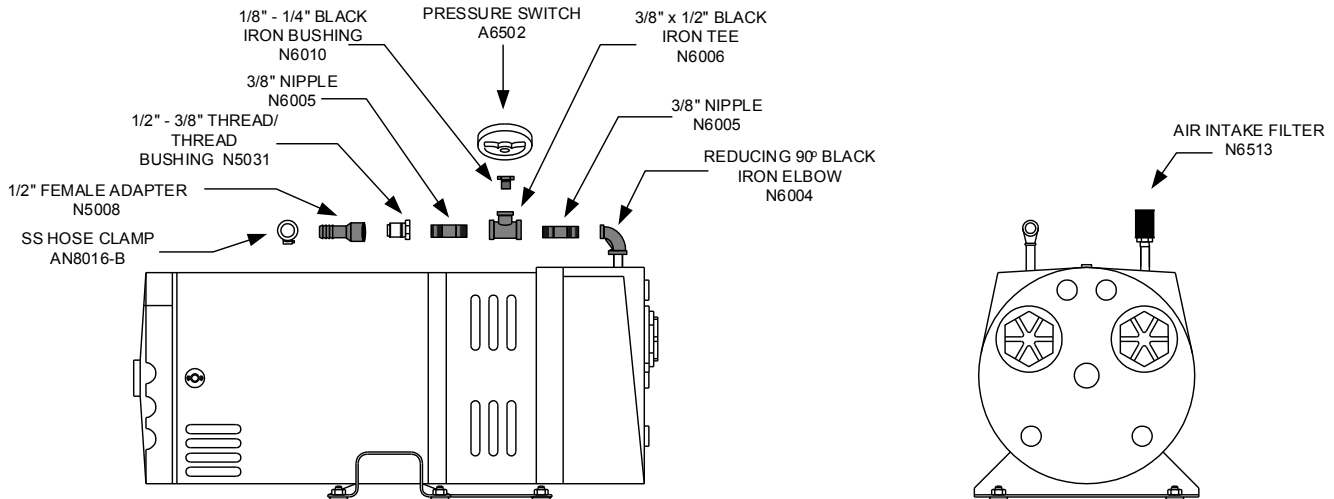


- 3.17 (OPTION) If the installer wishes to use  $\frac{1}{2}$ " plastic tubing instead of PVC pipe, screw a  $\frac{3}{8}$ " x  $\frac{1}{2}$ " reducing bushing onto the second  $\frac{3}{8}$ " nipple and then attach the  $\frac{1}{2}$ " PVC barbed fitting. Secure the plastic tubing (airline) with the stainless steel hose clamp.

**Note: The  $\frac{3}{8}$ " x  $\frac{1}{2}$ " reducing bushing, barbed fitting, as well as the tubing must be ordered separate. (Refer to Fig. 3.1B)**

### COMPRESSOR/AIRLINE ASSEMBLY (Option: Plastic Tubing Airline)

**Fig. 3.1B**



#### 3.20 ASSEMBLING THE AIR SUPPLY LINE AND DIFFUSER (Refer to Fig. 3.2A & B)

3.21 Remove the air supply line assembly that is taped to the draft tube (inner tank of basin). The assembly includes: a  $\frac{1}{2}$ " Sch. 40 PVC air line with diffuser plate and a  $\frac{1}{2}$ " Sch. 40 air line with female union. **All fittings necessary to attach airline from compressor to the airline/diffuser in the *NAYADIC* are enclosed in a plastic bag shipped with the compressor.** These include:

- 1) PVC Pipe Fittings (standard):  $\frac{1}{2}$ " PVC slip coupling and a  $\frac{1}{2}$ " PVC slip coupling with a short (1  $\frac{1}{2}$ ") PVC extension.
- 2) Black Flexible Tubing (optional, order separate):  $\frac{1}{2}$ " PVC (threaded) bushing with  $\frac{1}{2}$ " PVC extension,  $\frac{1}{2}$ " PVC slip coupling,  $\frac{3}{8}$ " barbed adapter and hose clamp.

3.22 Slide the shorter  $\frac{1}{2}$ " diameter air tube (with female union) through the  $\frac{1}{2}$ " hole in the inner tank. (The hole is located above the 4" inlet pipe.)

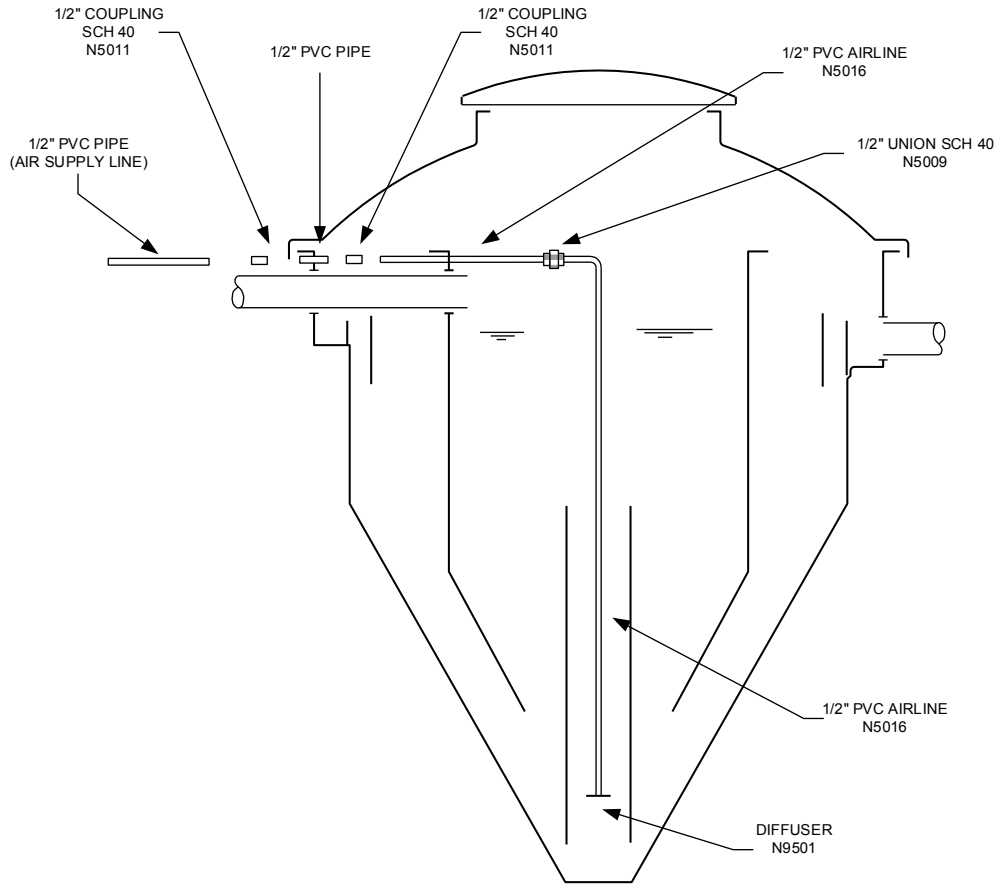
3.23 Insert the longer  $\frac{1}{2}$ " air tube (with diffuser) into the 8" draft tube, so that the diffuser is located near the bottom of the tank. The male end of the coupling (top of air tube) should be aligned with the female end on the shorter air tube previously inserted through the inner tank.

3.24 Connect the two ends of the air supply lines and tighten the union as much as possible by hand. NOTE: The diffuser should be located in the center of the bottom portion of the 8" draft tube. Check to insure that the diffuser does not extend below the bottom of the draft tube.

- 3.25 Glue a 1/2" coupling to the outer end of the shorter (top) air supply line. Align the coupling with the 1/2" hole in the wall of the outer tank. Take the second 1/2" coupling (that has a 3/4" piece of 1/2" pipe already glued in place) and insert the short piece of pipe through the 1/2" hole in the wall of the outer tank and glue into the coupling attached to the air supply line. *The unit is now ready to attach the 1/2" PVC airline from the compressor.*

**ASSEMBLY OF AIRLINE/DIFFUSER**  
(Option: PVC Airline)

**Fig. 3.2A**

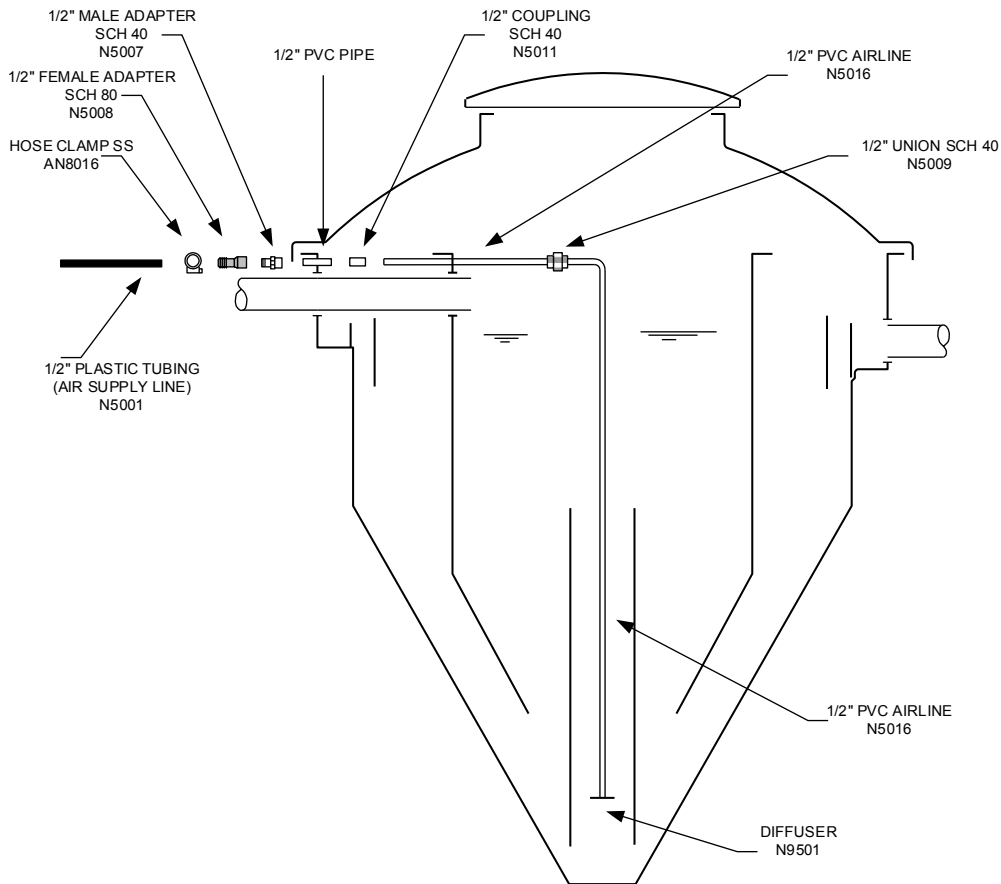


- 3.26 (Option) If 1/2" black flexible tubing is to be used for the airline (Refer to Fig. 3.2B) The threaded bushing that has a 1 1/2" long piece of pipe already glued in place should be inserted through the hole in the outer tank and glued onto the coupling attached to the air supply line.

- 3.27 Screw 3/8" barbed adapter onto the end of the bushing. *The unit is now ready to attach the black flexible tubing (airline).* Secure tubing with stainless steel hose clamp.

## ASSEMBLY OF AIRLINE/DIFFUSER (Option: Plastic Tubing Airline)

Fig. 3.2B



### 3.30 LOCATION OF THE COMPRESSOR

3.31 The compressor can be located either inside or outside. If located outside, a protective housing must be provided (see Item 3.33). The compressor can be located on the floor of a garage, utility building or in a crawlspace. *(Avoid locating the compressor in a tight, enclosed area).*

3.32 Do not attach compressor to the walls, framing, or support pilings of buildings.

3.33 (Outside location) If mounted outside, a protective housing must be provided to protect the compressor from excessive dirt, dust and direct rainfall. An approved housing can be purchased from **NAYADIC** for this use.

3.34 It is imperative that the compressor be protected from flooding or direct rainfall. If using the **NAYADIC** enclosed housing, it should be located in such a way as to prevent surface water from entering. If the compressor is mounted outside with an approved housing or in a building, it should be located above any possible flood elevations.

3.35 *Make sure the compressor is properly ventilated to prevent overheating.*

(Option) Internal Compressor Housing: **NAYADIC** supplies an internal compressor housing that allows the compressor to be mounted inside the **NAYADIC**. Separate directions for the use and installation of this housing are available from the factory. (Refer to Fig. 3.3)

### INTERNAL COMPRESSOR HOUSING

**Fig. 3.3**



3.40 INSTALLING AIR LINE FROM COMPRESSOR (Refer to Fig. 3.1 and 3.2)

3.41 PVC pipe, 1/2" Sch 40. (Refer to Fig. 3.1A) If PVC pipe is to be used, it is necessary to insure that all connections and fittings are properly glued to prevent leakage.

3.42 It is important to minimize the number of elbow fittings required to install the airline in order to minimize air loss. To assure proper air supply, no more than four (4) 90° couplings should be used.

3.43 (Option) Black plastic air line (Refer to Fig. 3.1B) If black plastic tubing is to be used for the airline, it must be ordered separate.

3.44 Slide one end of the tubing over the 3/8" barbed fitting on the compressor.

3.45 Unroll the tubing and cut off a length sufficient to reach the **NAYADIC** plant.  
**CAUTION: Allow sufficient length to avoid sharp bends or excess strain on the tubing or fittings.**

3.46 Slide the loose end of the tubing over the barbed adapter which extends through the outer wall of the **NAYADIC**. Hose clamps should be used to further secure both ends of the tubing.

3.47 **IMPORTANT:**

- The compressor should be located no further than 60' from the **NAYADIC** plant. An internal compressor housing should be used if the compressor will be more than 60' away.
- The airline (black plastic tubing or PVC pipe) should be installed on a solid base, either fastened to the inlet sewer or laid on undisturbed earth. Backfill carefully to avoid damaging the air supply line.

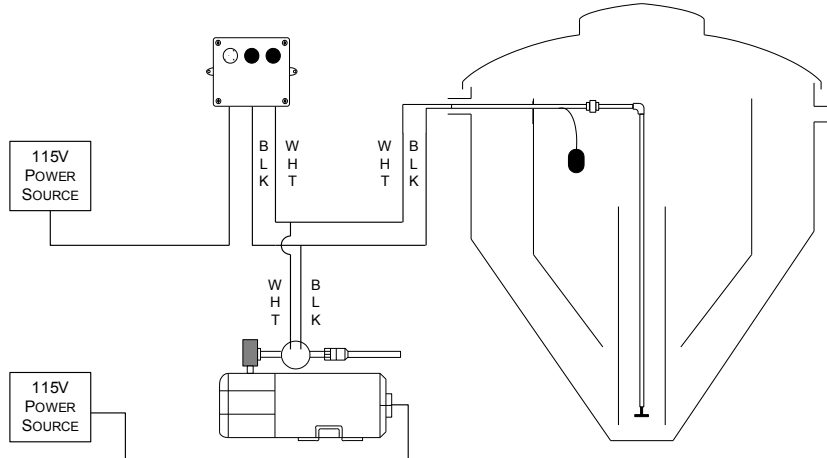
## SECTION 4.0 ELECTRICAL SPECIFICATIONS FOR THE M6-A, M8-A, M1050-A, M1200-A and M2000-A INCLUDING ALARM AND COMPRESSOR INSTALLATION DIRECTIONS

### 4.10 GENERAL INFORMATION

- 4.11 The electrical power requirements are 120 volt, 60 Hz, 1 phase (unless otherwise specified).
- 4.12 Provide a two wire with ground approved underground cable sized for the specific compressor model to be used and the length of cable from the power source.
- 4.13 Provide a minimum 15-amp circuit breaker at the main power source.
- 4.14 Study the wiring diagram (Fig. 4.1) which is also provided with each alarm (inside of alarm box).

### WIRING DIAGRAM: STANDARD ALARM

Fig. 4.1



#### 4.15 CONTENTS OF ALARM SYSTEM:

- 1 – standard **NAYADIC** alarm
- 1 – high level float (to sense high water condition)
- 1 – pressure switch (to sense electrical/mechanical failure)
- 1 – float clamp assembly
- 1 – flat cable connector (for cable thru tank)
- 1 – nylon locknut (for flat cable connector)
- 4 – wire nuts (2 orange for alarm, 2 yellow for pressure switch)

**Note:** Outdoor alarm contains 4 orange wire nuts for alarm and 2 yellow wire nuts for pressure switch for power cord connection.

- 2 – blue wire nuts (waterproof for float)
- 2 – jumper wires (connected to pressure switch)
- 1 – metal strain relief and metal locknut (for indoor alarm)
- 2 – plastic conduit adapters and metal locknuts (for outdoor alarm)

#### 4.20 FLOAT ASSEMBLY (Fig. 4.2)

4.21 Install the flat cable connector through the pre-drilled hole next to the airline hole. After setting the outer tank in the excavation and leveling the tank, insert 3 feet of the flat U.F. underground cable through the cable connector. Tighten the cable connector. Provide sufficient U.F. cable to extend to the compressor.

4.22 Install the float with clamp on airline. Note: The float clamp is to the topside of the airline and away from the inlet pipe.

4.23 Connect the wire of the float to the incoming wire from the alarm system using the blue wire nuts. First strip wire 1/2" and align frayed strand or conductors. **PRE-TWISTING UNNECESSARY.** Place stripped wires together with ends even. Twist connector onto wires pushing firmly until tight. **DO NOT OVER TORQUE.** Since this connection is made within the tank, you will need to provide a sufficient length of electrical cable to allow for the connections to be made near the access cover.

### FLOAT ASSEMBLY

Fig. 4.2



#### 4.30 PRESSURE SWITCH ASSEMBLY (Fig. 4.3)

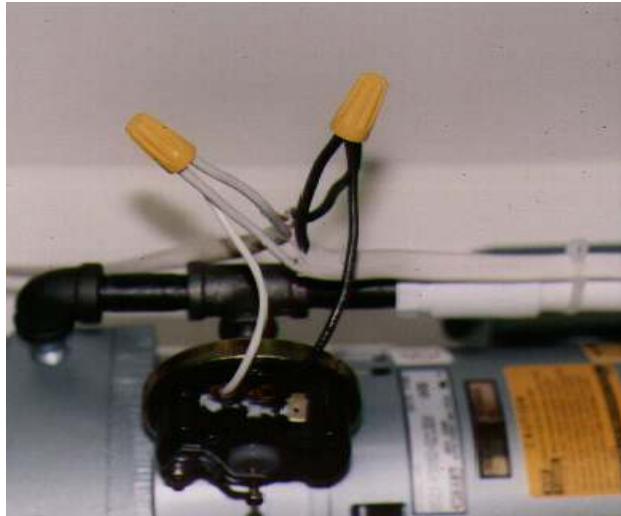
4.31 Thread the pressure switch into the reducing bushing in the tee located on the compressor discharge line (Refer to item 3.15). **DO NOT OVERTIGHTEN** for that could strip out the fitting from the pressure switch body. Use a wrench to secure the pressure switch into the tee. The pressure switch should be on an angle so that the pressure switch **DOES NOT SIT ON THE COMPRESSOR**.

4.32 Bring together the three (3) sets of black and white wires from the float, alarm and pressure switch. Using the yellow wire nuts, connect all three white wires and all three black wires.

4.33 Secure the wires from the alarm and float to the airline with the two wire ties.

### PRESSURE SWITCH ASSEMBLY

Fig. 4.3



#### 4.40 ALARM ASSEMBLY (Fig. 4.1)

4.41 Remove alarm from packing box. Remove faceplate by unscrewing 4 screws in corners of the faceplate. Turn the faceplate over in order to have access to the wiring components.

4.42 Indoor Alarm (standard): Using the metal locknut fasten the metal strain relief to the opening for the wire from the float and pressure switch. Fasten the two white wires together and the two black wires together with the yellow wire nuts. **Note: The indoor alarm is provided with a power cord to plug into any 115V outlet.**



- 4.43 Outdoor Alarm (optional): Using the metal locknuts, fasten the two conduit adapters to the alarm box openings. Using conduit (as required by local electrical codes) bring the wires from the pressure switch, float and the 115V power source into the alarm box. Using the yellow wire nuts, connect the two wires from the float switch to the two wires marked “to float and pressure switch” (white to white, black to black); and the three wires from the 115V power source to the three wires from the alarm marked “115V in” (white to white, black to black, green to green /ground).
- 4.44 Mount the alarm box in a visible location. **CAUTION: Do not connect the power source to the compressor and alarm until all electrical connections have been completed.**
- 4.45 Carefully replace the faceplate onto the alarm, pulling the excess cable through the metal strain relief. Leave sufficient slack to allow for future removal or service.
- 4.46 Replace the four faceplate screws.
- 4.47 Tighten the metal strain relief (on indoor alarm).
- 4.48 Push “TEST” button to check if the alarm is activated. **Hold for at least 15 seconds.** Reset alarm before leaving.
- 4.49 The wiring of the *NAYADIC* plant is now complete. *Be sure to place the service sticker of the appropriate service representative on the bottom of the alarm faceplate.*

## **SECTION 5.0      START-UP PROCEDURES**

### **5.10 CHECKING COMPRESSOR AND AIR LINE**

- 5.11 Once the compressor and alarm control have been installed and all electrical work is completed, power should be supplied to the compressor.
- 5.12 Check the compressor to insure proper operation. If the motor is humming, but the rotor assembly is not moving or is moving slowly, immediately disconnect the power source. **Refer to Item IA of the Trouble Shooting Checklist for corrective action.**
- 5.13 If the motor runs but provides insufficient air pressure check the internal filters to insure they are properly tightened. Make sure “o” rings are properly sealed.
- 5.14 Check the *NAYADIC* aeration chamber to insure proper aeration (turbulence) is occurring. If sufficient turbulence is not observed, check union on airline to insure it is properly tightened.
- 5.15 If no turbulence is observed in the aeration chamber, remove the lower air supply line (with diffuser) by unscrewing the union on the air supply line. If no air is

observed coming from the air supply line when the compressor is running, check the air line between the compressor and the **NAYADIC** (including all connections and fittings) to check for leaks or damaged air line. Replace or repair as necessary.

#### 5.20 CHECKING THE ALARM

5.21 With power being supplied to the compressor and alarm, press the “test” button to activate the alarm.

5.22 If the alarm is not activated when the test button is pressed, refer to section II of the Trouble Shooting guide for the proper corrective action to be taken.

#### 5.30 PLANT START-UP

5.31 Once the compressor and alarm have been checked and are operational, the plant is ready to receive sewage flows.

5.32 Normally, it is not necessary to add any chemicals or enzymes to facilitate plant start-up. It is helpful, however, to restrict the discharge of excessive amounts of gray water from showers and laundry during the initial 6-8 weeks of use.

5.33 If the **NAYADIC** system exhibits a gray dishwater appearance in the aeration chamber or has a noticeable odor, contact the factory or the local authorized representative for the proper procedure to follow to attain normal operation.

### **SECTION 6.0 USE OF A PRE-TANK**

The **NAYADIC** has been designed and listed (certified to function without the use of a pre-treatment tank. However, installation of a pre-treatment tank, if used to address local requirements or to reduce maintenance problems, will not adversely affect plant performance if properly sized and installed.

6.10 If a pre-treatment tank is installed, the liquid capacity of the pre-tank should be between 50 - 100% of the treatment capacity of the **NAYADIC**. Slightly larger tanks can be used with the M6-A and M8-A.

6.11 The use of a pre-tank may cause septic odors to escape from the **NAYADIC** during periods of heavy water usage (i.e., laundry). In these cases, a 4" Sch. 40 elbow can be installed on the inlet pipe to the **NAYADIC**. A 12" piece of pipe should be added to extend below the surface of the water. (Refer to Fig. 6.1)

**NAYADIC INLET DEVICE WHEN INSTALLED AFTER A PRE-TANK**

**Fig. 6.1**

