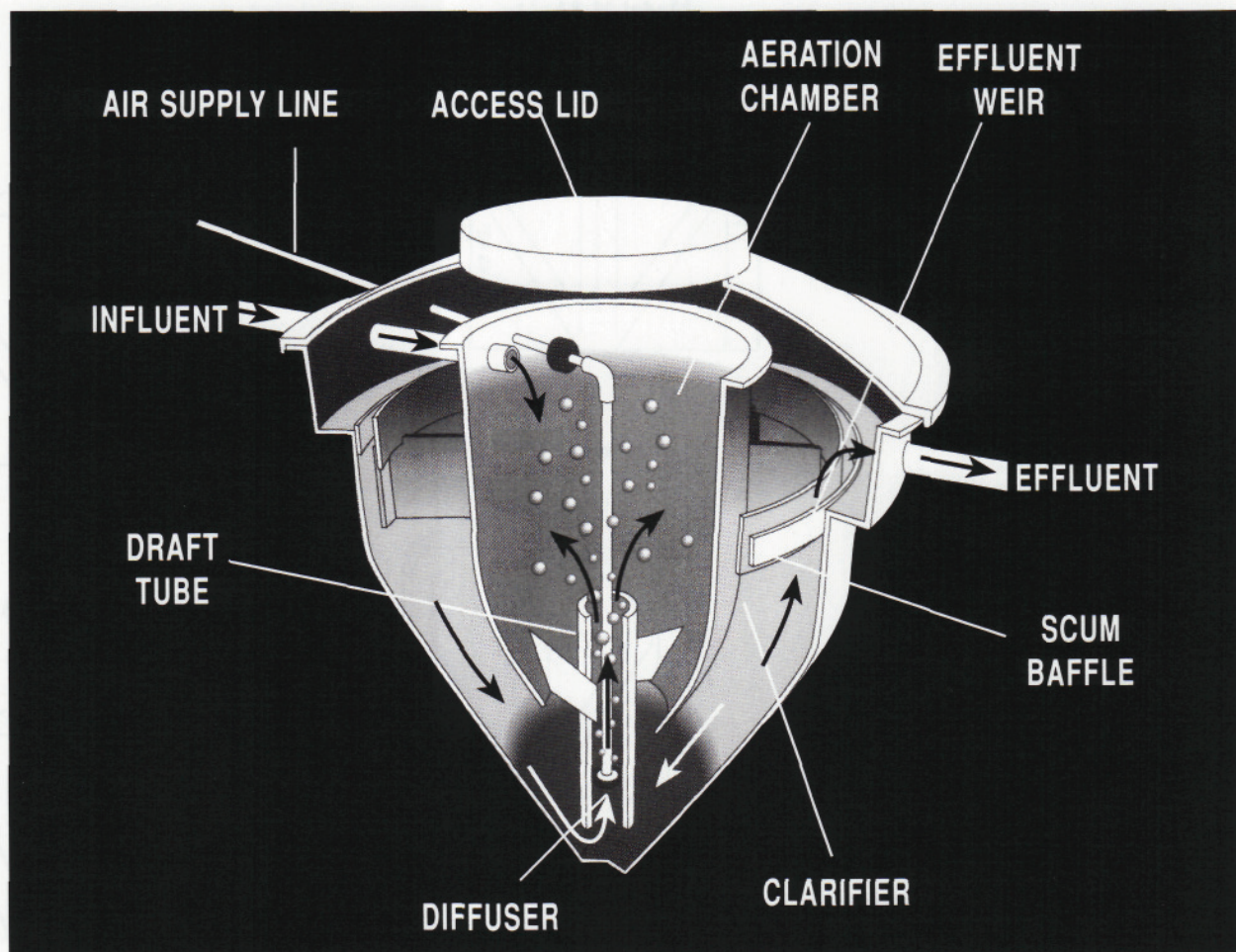


# NAYADIC

WASTEWATER TREATMENT SYSTEMS



## THE PROCESS

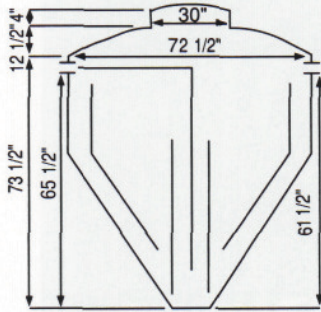
The NAYADIC system consists of two treatment chambers in a single tank. The center aeration chamber is a circular tank with a sloped, open bottom which empties into the bottom of the outer clarifier chamber. Located in the center of the aeration chamber is an eight inch diameter draft tube which extends to four inches from the bottom of the clarifier. Air is released at the bottom of the draft tube through a disc plate diffuser. As the diffused air rises in the draft tube, it causes an upward flow of process fluid. This draws the settled solids from the bottom of the clarifier up through the draft tube where they are discharged at the surface of the aeration chamber. The design of the draft tube insures continuous and complete mixing of oxygen with the sewage. This allows for the growth of various aerobic organisms that biologically degrade the wastewater contaminants.

Gravity causes the aerated solids to settle back to the bottom of the tank where they are again drawn back up through the draft tube. As raw sewage enters the aeration chamber, it displaces biological solids from the aeration compartment to the clarifier. Quiescent conditions in the clarifier allow the digested solids to settle to the bottom of the clarifier where they are returned back to the aeration compartment. The clarified (treated) effluent flows slowly up through the clarifier and over a weir which extends around the periphery of the tank. The effluent collects in an outer trough where it discharges through a four inch pipe. A scum baffle located inside the overflow weir prevents floating solids from passing over the weir.

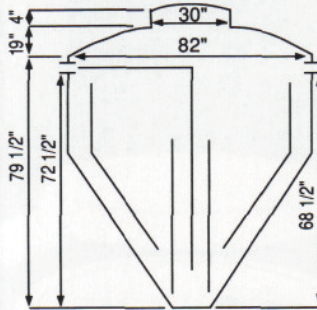
# NAYADIC

WASTEWATER TREATMENT SYSTEMS

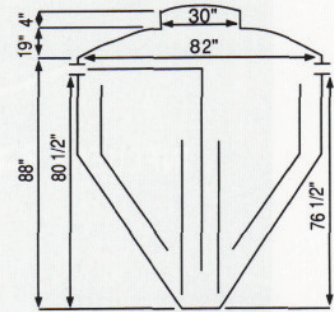
**Model M-6A**



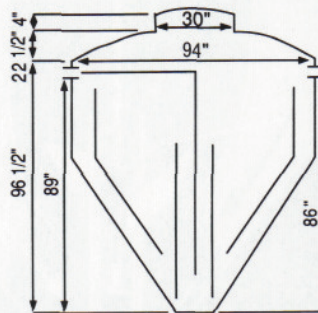
**Model M-8A**



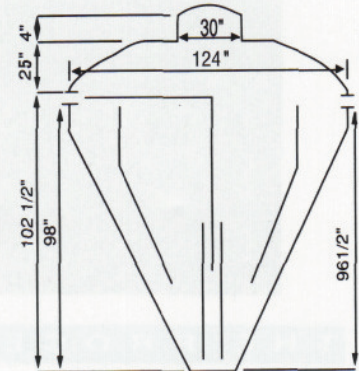
**Model M-1050A**



**Model M-1200A**



**Model M-2000A**



## Specifications

### Wastewater Treatment Test Results (ANSI/NSF Standard 40 Test Evaluation)

Test Results	Influent Mean mg/l	Effluent Mean mg/l	Reduction
BOD (5 days)	150	6	96%
SS	195	7	95%

### System Components and Materials

Wastewater Tank Dome and Cover: Fiberglass Reinforced Plastic  
 External Compressor: 1725 rpm, 115 Volts 60 cycle  
 Alarm System: Low voltage (12 Volt DC) Sensors Signal to the Control Box. Audio / Visual Signals Alert the Owner to loss of Air Supply or High Water Level in the Tank.

## UNIT SPECIFICATIONS

ITEM	M-6A	M-8A	M-1050A	M-1200A	M-2000A
Treatment Gal/Day	500	600	800	1000	1500
Volume Gal	600	800	1050	1200	2000
Shipping Weight	265	350	450	525	900
Organic loading lb. BOD/day	0.5 - 1.5	1.0 - 2.0	1.7 - 2.4	1.7 - 2.5	2.4 - 4.2
Aeration Rate cf/lb. BOD/day	3000	2950	2900	2300	2710
Rated capacity CFM @ 8 psig	2 - 3.7	3 - 4	3 - 4	3 - 4	6 - 7
Diameter	73"	82"	82"	94"	124" x 98"
Total Height (including lid)	93 1/2"	106"	114 1/2"	126 1/2"	135"
Grade to inlet invert	20 1/2"	26"	26 1/2"	30"	37"
Grade to outlet invert	24 1/2"	30"	30 1/2"	33"	38 1/2"
Excavation Depth	86"	98 1/2"	107"	119 1/2"	127 1/2"
inlet invert*	65 1/2"	72 1/2"	80 1/2"	89"	98"
outlet invert*	61 1/2"	68 1/2"	76 1/2"	86"	96 1/2"

\* From Bottom Excavation - See Drawing

Distributed by:



A Division of Consolidated Treatment Systems, Inc.

1501 COMMERCE CENTER DRIVE  
 FRANKLIN, OH 45005  
 937-746-2727



Certified to ANSI/NSF Standard 40  
 Class 1