

## System Specifications:

Digester Model:

### *Avatar AnD-300*

> 300 head Dairy Capacity

> Plug Flow Type Mesophilic Anaerobic Digester

## Site:

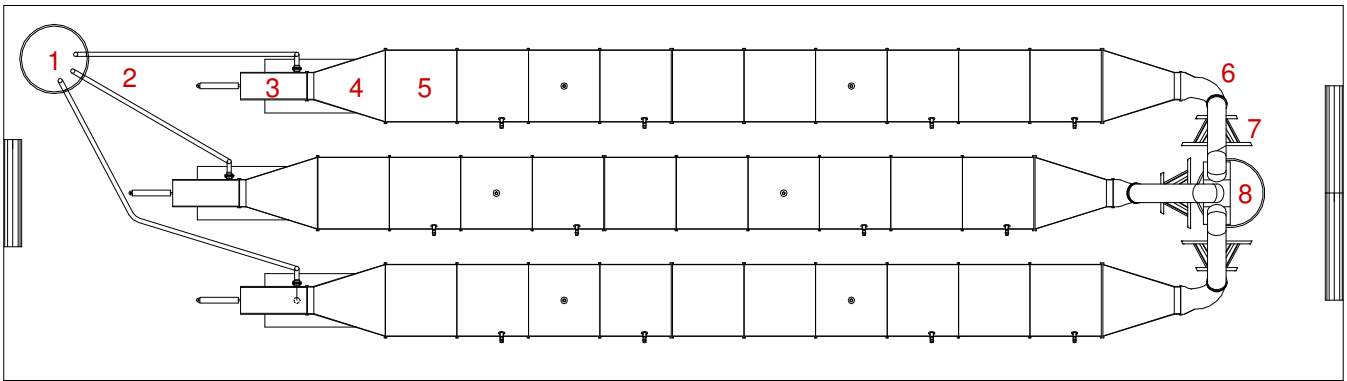
*Location:*

*Host:*

*Herd Size:*

*Reviewer:*

## Overhead View of Digester & Components Under Cover:



### Components:

1. Injection / Heating Tank

2. Manure Intake Lines

3. Injection Pump

4. Eccentric Reducer End Unit

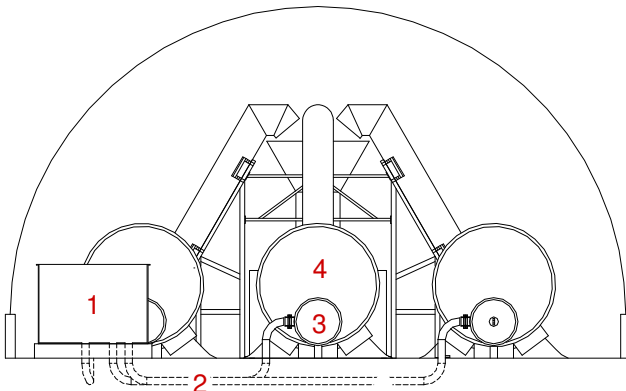
5. Tubular Hull Section

6. Inclined Tail Section

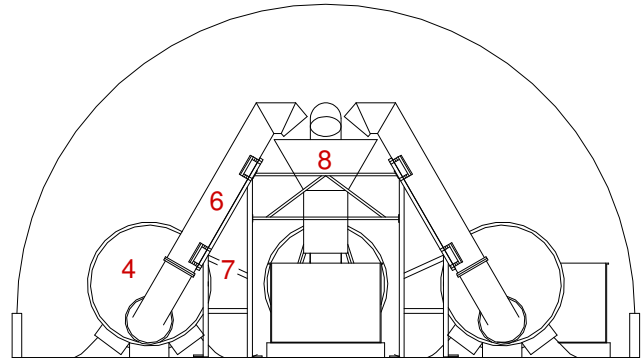
7. Tail Stand

8. Effluent Collection Tank

### Injection End View:



### Effluent End View:



## System Specifications:

### ***AnD-300***

Modular anaerobic digester with 3 parallel digester hulls. Single heating/feed tank and effluent tank shared by all hulls.

#### Digester Performance:

- Dairy Manure Intake: 4,500 gallons per day
- Plug Flow Retention Time: 20 days
- Feed Rate: 1,500 gallons per hull once daily
- Digester Operating Temperature (internal): min: 90°F, max: 110°F
- Ambient Operating Temperatures: - 30°F to 140°F

#### Biogas Specifications:

- Biogas composition: 60% methane, 40% CO<sub>2</sub>, 1% water vapor, 2000ppm H<sub>2</sub>S, trace NH<sub>3</sub>
- Biogas Energy content: 600 BTU per cuft
- Production Rate: 22,150 cuft Biogas per day; 550,000 BTU per hour
- Energy Production Capacity:

#### Digester Dimensions:

- Hull Dimensions: Length: 98', Diameter: 8' (w/o injector pumps or tail sections)
- Tail Section Dimensions: Incline Angle: 60°, Height: 17' 2"
- Overall System Length: 140' (including heating and effluent tanks)
- Minimum Enclosure Dimensions: 42' width x 150' length x 21' rafter height

#### Utility Requirements:

Electricity: 3 phase, 240 volt, 150 amp panel capacity

Water: 10 gal/min, 50 psi pressure