



500m³ Anaerobic Digester Kit (Strip-Forming)

Farm-based biogas systems are a logical extension of existing agricultural practices by closing the cycle between agricultural manure production and the recycling of nutrients back into primary agricultural production.

CH-Four Biogas Inc. has developed a system which is simple, robust and farmer friendly. High quality parts are used for critical components, while the overall system is based on continual value engineering.

The CH-Four Biogas Anaerobic Digester Kit allows for the most effective use of local resources because it makes use of local contractors for structural requirements. The Kit only contains specialized mechanical parts.

With the proper feedstocks, the 500m³ AD digester can produce enough biogas to operate a 180kW_{el} CHP. The CHP is not included in this Kit.

High-quality, off-farm organic wastes are a valuable biogas system feedstock. These materials boost biogas production while providing additional nutrients, which can further increase the value of the digester effluent as a fertilizer. The budget estimates below assumes off-farm substrates are delivered ready for digestion, without the need for separation at the farm.

The fertilizer value of the effluent depends on the quality of the off-farm feedstock. While the concentration of nutrients remain largely unchanged during the anaerobic digestion process, the availability of nutrients for plant uptake increases due to the mineralization of organic compounds.

Site Requirements

- ✓ The effluent from the digester will be piped to a lagoon or other such storage
- ✓ Standard footing and grading design
- ✓ CHFour supplies proven digester components in a kit
- ✓ CHFour digester design concept will be field adjusted to suit site specific challenges
- ✓ Locally available materials will be utilized

To be provided by owner

- ✓ Soil tests
- ✓ Site plan
- ✓ Manure piping to digester, manure pump if needed
- ✓ Electrical grid connection
- ✓ Building permit cost

