## Anaerobic Digester Fixed Cover



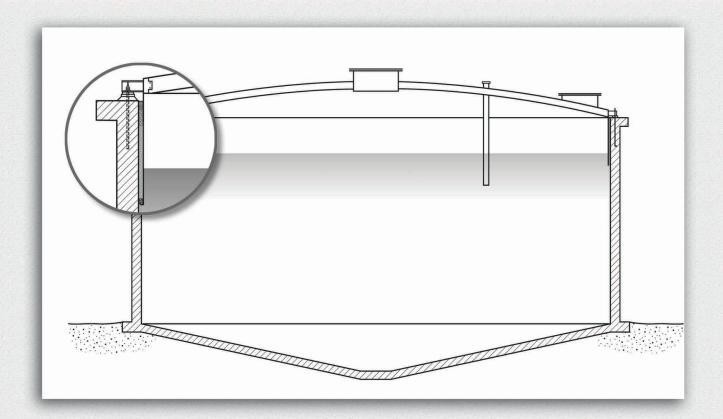


## Frame Designed Arched Beam Fixed Cover

Time-Tested, Longest Lasting, Highest Load Capacity Digester Cover in the Industry

- Low Profile Arched Radial Beam Construction -Completely Self Supporting.
- Frame Design for High Structural Factor of Safety.
- Readily Insulated.
- Anchorage Design Prevents Radial Loads on Tank Wall and allows only Vertical and Tangential Loading.
- Typical Sizes Range from 20 to 125 Feet in Diameter.

- All Walker Process Covers are Custom Designed for Project Specific Loading Conditions.
- Inherently Stronger and More Substantial than Membrane Type Covers.
- Typical Application Primary Digester with Constant Sludge Level .
- For Use with All Types of Digester Mixing Systems.



## **Conservative Design for Long Service Life**

Walker Process Fixed Covers are constructed with arched radial beams and designed based on a conservative frame design method that takes into account both the structural elements and elements of the plate work for analysis of structural integrity.

After field welding is completed, the finished structure demonstrates superior strength and durability because the structural framework and steel plates work together as an integral unit.

The arched radial beam design produces a durable low profile cover with superior strength for a long safe service life. **Main Rafters** 

Arched Radial Beams rolled to a radius of 1.5 - 2 times the tank diameter to produce a low profile with maximum structural integrity.

**Gas Dome** 

Provides the structural connection for the radial beams Includes a top plate for mounting gas lines, Pressure/Vacuum Relief valve and other accessories.

**Rim Plate** 

Minimum 3'-0" deep provides 2" gap to the tank wall and provides sufficient depth for freeboard, operating pressure, seal, and sludge level variation if any.

**Purlins** 

Structural members connected between main rafters to provide lateral bracing, rigidity and support for the roof plates, minimum ¼ inch thick.

**Roof Plates** 

Minimum  $\frac{1}{4}$  inch thick plate field welded to supporting structure.

**Anchorage** 

Anchor assemblies placed at each main rafter contain dual anchors that allow radial movement and hold-down of the cover when pressurized.

**Appurtenances** 

Access hatches, sampling wells, pressure and vacuum relief valve.

Walker Process has continuously provided and improved steel digester covers since 1948.

Also see our series of floating covers including; floating cover, gasholder, and combination floating cover/gasholder.

## **Walker Process Equipment**

Division of McNish Corporation 840 N. Russell Ave. • Aurora, IL 60506 • 1-800-992-5537 www.walker-process.com