



Ovivo® Anaerobic Digester Steel Covers

Cost Effective Sludge Stabilization

What are your needs?

- Easy operation and maintenance
- Simple installation
- Flexible design to suite many applications
- Variable sludge storage capabilities
- Long, trouble-free life

Key Benefits

- Simple, rugged structural design
- Quick and easy erection
- Easy to insulate using commonly available roofing materials
- No moving parts for simplified maintenance
- 30+ year life span

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OVIVO®
Bringing water to life®

Ovivo® Anaerobic Digester Steel Covers

Description

Ovivo provides a variety of steel digester covers. Each cover is constructed as a dome-shaped segment of a sphere, offering maximum strength and structural integrity. The steel digester covers are radial beam designed to be erected quickly and efficiently. A thrust ring is installed at the periphery of each cover to absorb all design loads without transmitting excessive forces to the digester wall. During erection, the cover is supported by radial beams attached to a center ring and the thrust ring which add strength to the complete unit.

Our radial beam design includes the following configurations: Fixed, Gas holder/floating, HydroSeal® type and Buoyant. Ovivo will provide the best option for each application based on the customer needs.

Benefits

- The use of radial beams allows the cover to be erected quickly and efficiently.
- Ovivo's cover design is compatible with all our available mixing systems to ensure adequate anaerobic digestion process.
- The covers are designed based on the requirements specified for each application, using the latest structural standards.
- A variety of accessories are available with our covers to effectively interface with the consulting engineer's design and comply with the customer requirements.





Fixed Steel Cover (Type F)

The Type F cover is the most economical steel cover. The main application is on digesters with constant water level (primary or first stage digesters). The Fixed covers can be sealed against the tank to combat odors. For this design, the side sheet should be extended below the minimum liquid level. Otherwise, two options are recommended: 1) the supplier of the filler material should confirm that it can withstand the operating pressure 2) an independent clean liquid launder should be provided that allows for a pressure seal at any given sludge level (Contact Ovivo for additional details for this option).



Gas Holder / Gas Floating Steel Cover (Type GV)

The Type GV uses the radial beam design structure with added side sheet and ballast for digester gas storage or floatation. Submerged ballast blocks are used to maximize cover stability and maintain adequate gas pressure. The design includes a vertical guide arrangement with guides attached to the tank wall. Guide devices, spanning from the top to the bottom of the cover side sheet, are engaged to stabilize the cover.



HydroSeal® Steel Cover (Type GVL)

The separate launder and liquid seal between the digester tank and the cover eliminates gas and VOC emissions, improves service access and improves the maintenance access.

This design allows variable sludge storage capabilities since the side sheet operates independent of sludge storage in clean area. No components come in contact with the sludge.



Buoyant Steel Cover (Type B)

The Type B uses the radial beam design structure including a peripheral buoyant chamber. The cover floats directly on the digester contents. Precast concrete ballast blocks are placed to maintain a specified gas pressure. A major portion of the buoyant volume which keeps the cover afloat is located at the cover periphery; this feature provides an excellent resistance to tipping. The slide guide system will provide vertical movement without rotation or binding.

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EZ-RECT™ SYSTEM

The EZ-RECT™ cover erection system is a feature with the digester cover. Ovivo offers this option to reduce the amount of field welding.

Ovivo will provide the digester cover with cover plate/radial beam sections pre-assembled and finish welding in the shop to facilitate the erection of the cover. Each assembly will consist of two (2) beams and one (1) cover plate.



Cover erection is completed in five steps:

1. Side Sheet Assembly
2. Center Ring and Erection Beam Installation
3. EZ-Rect Cover Plate Assembly Installation
4. Remaining Cover Plate Installation
5. Manholes, Spools, Tubes, Etc., Installation



OVIVO® CONNECT™

Get Connected! Like all Ovivo equipment, your new EWT™ anaerobic digester steel cover will provide you with access to the Ovivo® Connect™ portal, our innovative client resource application.

- Need access to your O&M Manual?
- Needs spare parts?
- Want the latest tips and news on your product?



Just scan the QR Code, or type-in the URL featured on the nameplate, to access dedicated web pages that will help you maintain and optimize your plant and your Ovivo equipment!



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