

PFT® Steel Cover Gas Holders

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The basic structure of steel gas holders is similar to that of a floating cover except for an extended rim skirt and a concrete ballast ring that is placed around the bottom of the rim skirt. The ballast ring provides a pressure increase which activates waste gas burners and gas safety devices to release excess gas from the gas holder.

PFT® steel gas holders, either vertical guided or spiral guided are available in exposed truss or Duo-Deck™ designs. The ceiling plate of the Duo-Deck™ design prevents the roof plate and structural components of the cover from coming in contact with the digester contents, thereby avoiding the related corrosive effects. Protecting the roof plate and structural components from corrosion makes these the safest design.

The ceiling plate also provides the gas holder with some of the same benefits of the Duo-Deck™ floating cover, such as scum submergence whenever gas storage is depleted; and a dry attic space for the protected location of insulation and ballast materials.

The exposed truss design has no ceiling plate, so the structural components of the cover are exposed to the digester contents. Since this design does not offer the feather of periodic scum submergence and does not have an attic space for insulation and ballast it is best suited to less active secondary digester applications requiring lower gas operating pressures.



Spiral Guided Gas Holders

The PFT® spiral guided gas holder rotates as it travels up and down, and is suited for larger applications, typically up to 110 foot (35 meter) diameter, or where unbalanced loads are probable. Rotation is accomplished by guides receded in the rim skirt at a 45 degree angle which engage rollers mounted in the tank wall. The rotational travel of the spiral guided arrangement prevents the gas holder from jamming. With unbalanced loads, rollers opposite each other act in pairs. As the gas holder tilts, one roller of the pair engages the upper side of the guide while the opposite roller engages the lower side, causing the gas holder to attempt to rotate both clockwise and counter clockwise. This action occurs at each pair of rollers. The opposite forces result in a positive righting action which assures that the gas holder will not tip or bind under any operating conditions.

Vertical Guided Gas Holders

PFT® vertical guided gas holders are suitable for applications where unbalanced loads, winds, snow, etc. are not probable. Generally, these are for gas holders under 40 feet in diameter or with short skirt length.

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Data Sheet