

## **GEODESIC DOME ROOF**



The HMT Geodesic Dome features a clear-span, all-aluminum, lightweight, corrosion-resistant structure which sets a new standard for performance in aluminum geodesic domes.

HMT's unique overlapping-panel design and attention to details at critical locations all result in a cost-effective solution that provides superior protection of your stored product.

The HMT Geodesic Dome can be installed in-service and its superior design was developed under the guidance of API 650, appendix G and AWWA D-108.



#### **Key benefits:**

The HMT Geodesic Dome's advanced technology provides excellent benefits. Here's how:

*Most effective leak-protection solution* — Engineered for maximum weather-tightness for both new tanks and retrofits

*Low maintenance* — Aluminum alloys are corrosion resistant and don't require painting like steel fixed roofs

**Emissions reduction** — reduces wind-induced vapor loss, aids in odor control and provides significant emission credits; for light products such as gasoline, a dome installed over an EFR can cut emissions by over 90%

*In-service installation* — Can be erected on the ground beside the tank or on an EFR and lifted into place

**Custom engineered**— To accommodate a wide range of spans and loading conditions

### **Key design features:**

- Batten bar and gasket assembly completely encapsulate panel edges for unparallelled sealing
- Overlapping panels ensure additional protection against weather
- Hub designed with three levels of sealing to ensure maximum leak protection
- Hub can be easily removed for inspection or adjustment of IFR support chains
- Options for fixed or sliding rim connections
- Can easily handle the weight of suspended aluminum internal floating roofs
- Industry-leading 3D design software for maximum accuracy and shorter design time

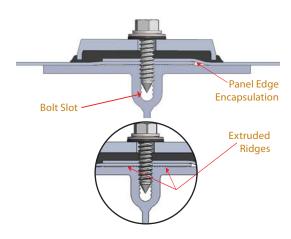
Protecting your world, one tank at a time™

## THE HMT GEODESIC DOME DESIGN

HMT's design incorporates features which dramatically improve upon existing technology. Here's how:

# Quality design details that result in unsurpassed seal integrity

HMT's design incorporates many design details which improve upon existing technology. The batten bar/gasket system fully encapsulates panel edges. The beams are designed with an extruded groove to receive fasteners without penetrating through to the dome's interior. Single web beam profiles reduce the overall weight of the structure without comprimising structural performance. Double web beams can be provided when required. Ridges located on the top flange engage with sheeting for excellent mechanical sealing. This seal feature also protects gasket from product-side attack. This superior design was developed under the guidance of API 650, Appendix G.3.2.

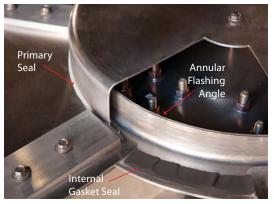


### **Excellent water shedding ability**

HMT's unique overlapping panel design sheds water naturally for superior protection of your stored product. Combined with the batten-bar and gasket system, this design sets the standard for weathertightness and resistance to leaks.

## Triple seal hub design

HMT's uses best available technology with its threepart hub seal design. Silicone provides the first-level protection. Secondly an annular angle allows 360° flashing protection with an internal gasket seal that creates a third-level weather barrier in this design.



The hub design allows for easy removal of the cover for inspection and easy adjustment of internal floating roof support chains.



### Other benefits and options

- Fixed and sliding connections available
- Custom designed by state-of-the-art 3D program
- Tanks can remain in service during installation
- Low-profile designs available
- Supports aluminum internal floating roofs
- Can be designed for heavy snow and wind loads

### ABOUT HMT

HMT is the global leader in aboveground storage tank solutions. HMT's global team of engineers, project managers and field personnel can assist with common challenges including ways to reduce emissions, optimize tank capacity, reduce stranded inventory and engineer a tank system that exceeds safety standards and extends maintenance intervals.

HMT's full suite of tank products includes: External Seal Systems - Internal Seal Systems - Drain and Floating Suction Systems - Geodesic Domes - Skin and Pontoon IFRs - Full Contact IFRs - Emissions Reduction Devices

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