



# ALUMINUM DOME ROOF



The HMT Aluminum Dome is a clear-span, lightweight, corrosion-resistant structure that sets the standard for performance in aluminum domes. The design complies with the latest edition of API 650 Annex G and the Aluminum Design Manual.

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

The HMT Aluminum Dome can be installed in-service.



## Key benefits:

HMT'S advanced Aluminum Dome 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 and provides significant emission credits; for light products such as gasoline, a dome installed over an EFR can cut emissions by over 90%. Domes offer improved emissions versus cone roofs due to elimination of IFR column penetrations.

**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:

- Depth of batten bar profile and optimized screw chase combine to create uniform, best-in-class clamping force and unparalleled sealing along all panel edges
- Full-scale concentrated load tested to more than triple API requirements
- Full-scale distributed load tested to more than double API requirements
- Hub cover can be easily removed for inspection or adjustment of IFR suspension system
- Hub cover assembly designed to direct water around the hub
- Can easily handle the weight of suspended aluminum internal floating roofs
- Rigorous structural-design methodology in accordance with the latest revision of the Aluminum Design Manual



## THE HMT ALUMINUM 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 depth has been increased for improved rigidity, resulting in more uniform pressure between fasteners and better sealing along panel edges.
- The batten screw and screw chase have been optimized for best-in-class engagement and clamping force, resulting in better sealing along all panel edges.
- Batten-bar gaskets have been designed to concentrate pressure, further optimizing sealing capability.

### Other benefits and options

- Fixed and sliding support connections available
- Custom designed using industry-leading 3D design and FEA software packages to ensure compliant, reliable structural design
- 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
- Variety of appurtenances available

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## 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 - Aluminum Domes - Skin and Pontoon IFRs - Full Contact IFRs - Emissions Reduction Devices

HMT LLC | 24 Waterway Avenue, Suite 400, The Woodlands, Texas 77380

Ph: +1.281.681.7000 | Fax: +1.281.419.7689 | Locations worldwide

Visit us at [www.hmttank.com](http://www.hmttank.com)

