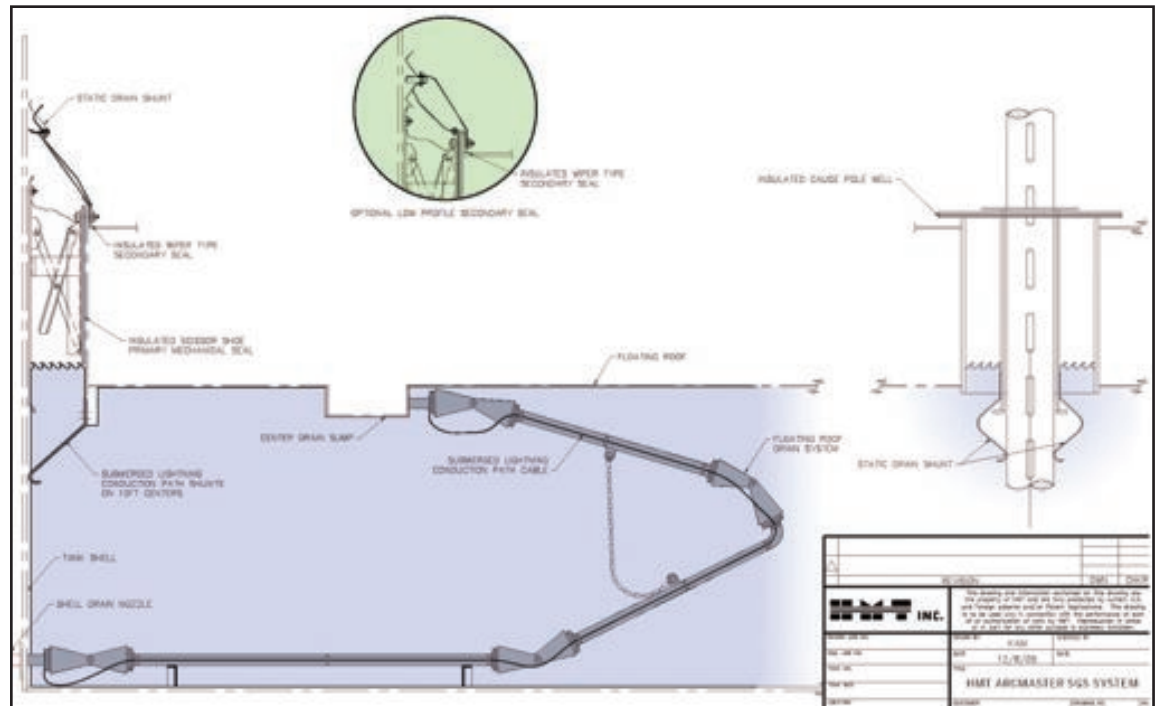




ARCMASTER™

Submerged Grounding System



HMT has developed a Submerged Grounding System that will provide multiple conduction paths for lightning induced electrical charges to be transmitted from the external floating roof to the tank shell and subsequently to ground.

The ARCMASTER™ is designed to carry this charge below the floating roof and below the stored liquid surface, thereby confining any subsequent electrical arcs or sparks to the liquid, below the rim space and below the combustible air/hydrocarbon vapor mixture. Testing has been carried out by experts in the field confirming that this system will significantly reduce the likelihood of a rim fire caused by a lightning strike.

The ARCMASTER consists of five separate devices, each designed to function in concert with one another to protect the AST from a lightning induced rim fire. It is not possible to unconditionally state that a rim fire will never occur, given the considerable number of variables contributing to such an occurrence. However, this system will significantly reduce the likelihood of such a lightning induced rim fire. The system allows pathways for both the fast rate, high current amplitude lightning components and the slow lightning components, both of which are present in a lightning strike.

Contact your local HMT Representative to discuss the full suite of products and services that will satisfy all your AST needs.

HMT's ARCMASTER Components Include:

- Submerged Lightning Conduction Path Shunts, connecting the underside of the floating roof at the outer circumference of the roof to the tank shell, spaced around the perimeter of the roof.
- Submerged Lightning Conduction Path Cable, connecting the underside of the floating roof center drain sump to the shell drain nozzle, located near the base of the tank shell.
- Scissor Shoe Primary Mechanical Seal, insulated from the floating roof to prevent a conduction path from the floating roof to the tank shell above the liquid surface.
- Wiper Type or SEAL KING™ Secondary Seal, insulated from the floating roof to prevent a conduction path from the floating roof to the tank shell above the liquid surface.
- Insulated seals around the Gauge Pole wells and other such penetrations in the floating roof.

- The five components of the ARCMASTER work together to dissipate the lightning charge. Further, these components will aid in the dissipation of any static build-up and eliminate electrical potential differentials between various tank parts.
- The AST industry and API recognize that the most effective defense against ignition by lightning is a tight fitting primary and secondary seal system. The ARCMASTER is most effective with such properly fitting seal systems.



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Locations worldwide to service
all your AST needs.

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