

RETRO-FIT MECHANICAL SHOE SEAL FOR ALUMINUM FLOATING ROOFS



HMT's Retro-Fit Mechanical Shoe Seal was designed to solve a common problem in the AST industry: how to safely and effectively add a primary mechanical shoe seal to an existing lightweight aluminum IFR. This seal employs a unique system of pontoons to provide additional buoyancy required at the perimeter and a compression ring to give the rim added strength and torque resistance to handle the drag forces exerted by the shoe seal. The Retro-Fit Mechanical Shoe Seal provides a long service life, compatibility with virtually all stored products and a tight fit to aid in eliminating emissions losses.

Key benefits:

The HMT Retro-Fit Mechanical Shoe Seal's primary benefits include:

Compatibility — compatible with most stored products

No gapping — maintains a tight seal even with wide-ranging rim spaces and tank abnormalities

Long life — key components made from stainless steel, ensuring spring longevity and long-lasting seal performance

Low maintenance — workhorse design and materials

Key design features:

- Supported by a system of buoyant pontoons; each pontoon is held in place by extruded structural aluminum framing for excellent strength and rigidity
- Constructed of materials that are compatible with most stored products including gasoline, crude oil, benzene, ethanol, methanol, toluene, naphtha, MTBE, ETBE and TAME
- Each HMT seal is designed and sized to fit the specific tank and floating roof dimensions
- Premium fabrics for long-life and durability of vapor barrier
- Horizontal and vertical rim mounts
- Designed with guidance from EPA and local regulations

THE HMT RETRO-FIT MECHANICAL SHOE SEAL FOR ALUMINUM ROOFS

HMT's Retro-Fit Mechanical Shoe Seal can be fit to lightweight aluminum roofs, help reduce emissions loss and will maintain a tight seal for years to come. Here's why:

1. Custom-hardened stainless steel

A critical ingredient in all our seals is the type of stainless steel we use. This steel, purchased direct in mill-run quantities, is custom-hardened to our specification to maximize spring pressure and longevity. While annealed or off-the-shelf "quarterhard" steel can lose its spring, HMT components will spring back and avoid fatigue longer than any other seal on the market. This translates directly into longer life, lower maintenance, and most importantly — no gapping.

2. System of buoyant pontoons

The Retro-Fit Mechanical Shoe Seal is supported by a system of buoyant pontoons, ensuring the existing roof stays level, while maintaining a tight seal.

3. Compatible with virtually all stored products

Seal compatibility is no longer a problem for such hydrocarbons as gasoline, crude oil, benzene, methanol, toluene, naphtha, MTBE, ETBE or TAME. The Retro-Fit Mechanical Shoe Seal, combined with HMT's laminated PTFE vapor barrier fabric, is resistant to virtually all products stored in floating roof tanks. This seal provides superior strength and economical corrosion prevention.

4. Industry-leading PTFE fabrics

An area where HMT outperforms the rest is in the quality and durability of our fabrics. We offer a variety of fabric choices, depending on service requirements. Our standard PTFE fabrics are laminated, which are unsurpassed in terms of durability, impermeability and service life. HMT's fabrics will wear extremely well in even the most aggressive services.

Other benefits and options

- Designed with guidance from EPA and local regulations
- · Horizontal or vertical rim mounts
- · Compatible with welded and riveted tank shells
- · Available with secondary seal systems







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

HMT LLC | 24 Waterway Avenue, Suite 400, The Woodlands, Texas 77380 Ph: +1.281.681.7000 | Fax: +1.281.419.7689 | Locations worldwide

