# TANK SEALS



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We provide an extensive selection of tank seals, integrating well-established technologies like shoe seals with our own insights into pioneering enhancements and novel advancements. This commitment to innovation extends throughout our entire product line, encompassing everything from tank seals to floating roofs, aluminium domes and tank appendages. Our versatile seals are meticulously designed to cater to both external floating roofs and internal floating roofs, offering a diverse array of options and qualities to choose from.

### Range

Liquid mounted prmary seal types

- Shoe plate seals
- Compression shoe seals
- Foam seals and liquid filled seals

Vapour mounted primaryseals

- Compression plate seals
- Foam seals and liquid filled seals
- Shoe plate seals

Secondary seal types

- Compression plate seals (differen tip designs abailable)
- Low profile seals
- Tertiary seals

### Retrofitting

Many tanks have been designed and built decades ago and are aproaching their intended service life. During the years seal designs have developed and the durability and efficiency of seals has improved significantly.

We have wide experience in replacing various older seal types, such as the SIPM, SR1(a), Horton and many others.

In these cases we will inspect the tank and design one of our standard seals types in such a way that the seal will not only fit the EFR and perform perfectly, but also contribute to the extension of the service life of the tank involved.

#### **Our Promise**

With our engineering team boasting decades of experience in tank seal design, we possess a unique understanding that each tank is distinct, with its own set of individual design considerations. Rely on us to adeptly navigate this complexity and strike the perfect harmony between reliability, performance, and cost-effectiveness.

Your trust in our expertise ensures an optimal solution tailored to your specific needs.

Count on us to make informed decisions, keeping functionality, cost of ownership, and a positive impact on a better future at the forefront of our considerations. As your reliable ally, we are committed to providing solutions that not only meet your needs but also align with sustainable practices for a more environmentally responsible tomorrow.

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## TANK SEAL PRODUCT RANGE

#### Shoe plate seals

Over the years mechanical shoe plate seal has proven to be one of the most resilient and versatile solutions for sealing the gap between the tank shell and floating roof. It combines excellent sealing characteristics with very good product compatibility.

This seal consists of metal shoe plates that connect to the tank shell, these shoe plates are supported by with scissors and pushed against the shell with special leaf springs. The durable vapour barrier completes the seal.



#### Vapour mounted seals

The typical vapour mounted compression plate seal consists of a vapour mounted compression plate tank seal (primary and secondary seal). Its design is based on compression plates pushing a rubber tip against the tank shell.

This seal is available in many different configurations. The tip configuration as well as the seal design are subject can be changed depending on the service requirements and actual tank conditions.



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### Compression shoe seals

This seal is based on compression plates that seal against the tank shell, supported by a stainless steel leaf spring. Between the seal plates and the backup springs a vapour barrier made of PTFE ensures a vapour tight seal. This basic design will be tailored to each specific tank.

This combination of innovative technology and consideration for specific tank geometry makes our compression shoe sealing system the best available technology for emission reduction on external floating roof tanks.



#### Secondary compr. plate seal

Our secondary compression plate seal consists of metal plates, pushin a rubber tip tight against the tank shell. Various tip profiles are available, depending on the service of the tank and the operational requirements.

Behind the compression plates, fully shielded from weather exposure, a vapour barrier fabric ensures the vapour tightness of the seal.

#### Liquid Mounted or Vapour Mounted

## Liquid mounted seals

The liquid mounted seal typeds are one of the most effective primary tank seals when considering emission reduction. With this sealing system the resilient foam core or liquid filled tube provide a uniform sealing force regardless of the shape of the tank shell. A hold down plate and reinforced polymer fabric provide maximum sealing against the tank shell.

This seal has a large contact area and is therefore a very tight seal. Primary foam seals can either be vapour mounted or liquid mounted



#### Low profile seals

The Low Profile seal is an independent rim mounted secondary seal designed to have a minimal height. This allows for maximum filling capacity. The height is approximately 150-250mm above the rim of the floating roof. This seal is connected to the rim of the floating roof, which allows the seal to operate independent from the primary seal. As this seal is dependent on an exposed fabric it is less suitable for area's with high probability of lightning strike.

The positioning of seals relative to the liquid surface plays a pivotal role in their performance. These seals can be categorized based on their mounting location: either within the liquid or above it, aptly named liquid-mounted and vapor-mounted seals, respectively.

Generally, liquid-mounted seals are known for their superior emission reduction capabilities, making them highly effective in minimizing leaks. On the other hand, vapor-mounted seals exhibit greater resistance to chemical degradation, offering enhanced durability over time. Each type of seal presents distinct advantages, and the choice between them depends on specific application requirements and desired outcomes.

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