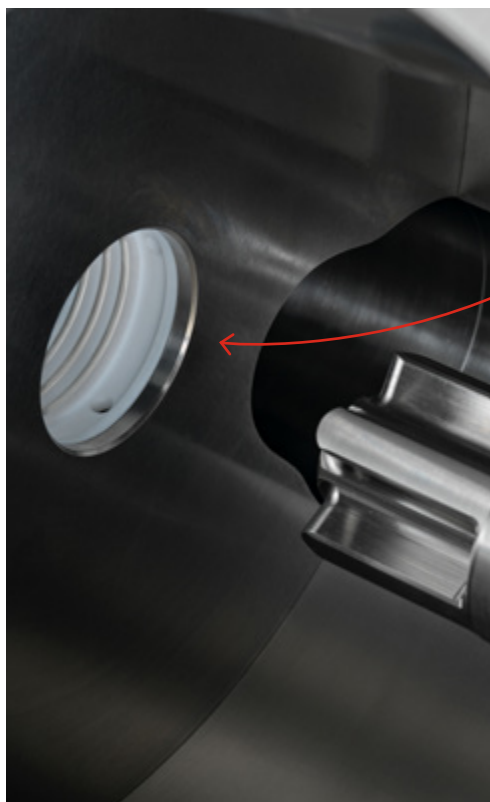


SOLUTION HIGHLIGHTS///

SANITARY AIR SEAL (SAS)



When it comes to shaft seals you can either opt for the improved SAS or the Viton lip seal. The SAS is your perfect choice when ultra-hygienic levels are required. If a lesser, but still USDA-approved hygienic standard is acceptable, or when you handle abrasive products like sugar or lactose, we recommend the Viton lip seal.



WHERE IS THE SEAL LOCATED?

The seal is located around the shaft of a rotary valve. The highlighted image below indicates position of the section views used in this document.

SAS

For applications requiring ultra-hygienic standards and the immediate identification of hygiene issues, the SAS is recommended. In combination with well managed air flow, the SAS ensures the highest level of hygiene and safety. Please stick to our general strategy for maintaining hygienic environments, for optimal results.

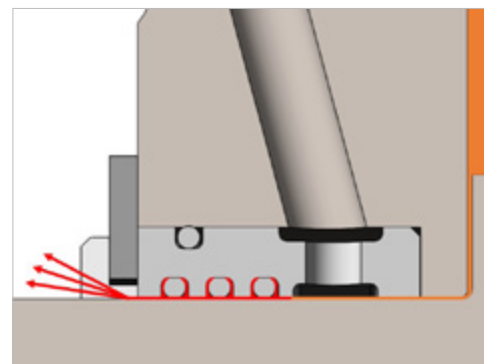


Figure 1, section view of SAS with product. When O-Rings are worn out leakage will be visible.

VITON LIP SEAL

In cases where an abrasive product is used and the highest level of hygiene is not required, the 'Air purge with Viton lip seal' is a good solution, since it is less prone to wear and still hygienic.

GENERAL STRATEGIES FOR MAINTAINING HYGIENIC ENVIRONMENTS.

To ensure optimal hygienic and safe operating conditions with the use of any seal make sure that you meet the following strategy.

1. Use enough air before, during and after there is product in the rotary valve. This means having the air supply activated on

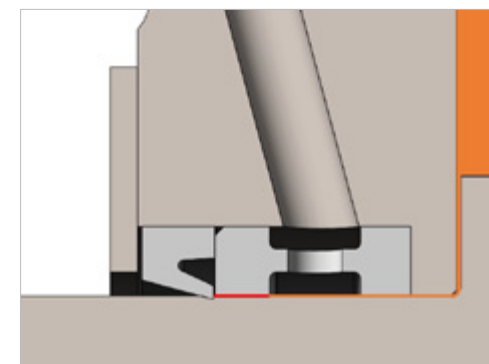


Figure 2, section view of Viton lip seal with product, this shows that there is less space for product.

the shaft seals both before and after the powder passes through the rotary valve.

2. Use flow control instead of pressure control.
3. Use enough seal grease and refresh in a timely manner.

FREQUENTLY ASKED QUESTIONS BY CUSTOMERS

Q: The previous generation of SAS lasts longer than the improved edition of the SAS. Why can't I choose the older generation seal anymore?

A: After a comprehensive analysis, it has become clear that the O-rings of the previous

SOLUTION HIGHLIGHTS///

SANITARY AIR SEAL (SAS)

generation and the current SAS wear in a similar manner when in contact with abrasive product. However, the leakage of the older seals is generally prevented by the lip seal. Therefore, the customers experience it as better shaft seal. But this implies that there is product present around the O-rings that caused the wear, this is not hygienic.

Q: Which seal is recommended for ultra-hygienic situations?

A: The SAS. This seal provides a direct indication of wear and an unhygienic situation namely the presence of product around the O-rings.

Q: Which seal is recommended when processing abrasive products in a hygienic situation?

A: The Viton lip seals. This lip seal will wear less when in contact with abrasive product due to the shape of the sealing, providing an extended resistance against product leakage. This solution is also hygienic and approved by the USDA.

Q: Which seal is both USDA and EHEDG approved?

A: SAS is approved by both USDA and EHEDG. Alternatively, the Viton Lip seals are USDA approved.

Q: Air is costly. So why do you advise on using air before and after the powder is passing through?

A: For both hygienic reasons and to prevent unnecessarily wear on the shaft seals. The additional air will clear the

seals preventing powder build-up and mold formation. Mold (formed by powder residue and moist) and powder mixed with lubricant residue are prevented when applying the correct amount of air during and after operations.

Q: Why do you recommend flow control over pressure regulated control?

A: Precise flow management mitigates the accumulation of powder residues around shaft seals, averting potential risks such as contamination, leaks, machinery damage, and operational downtime required for maintenance and cleaning. This is possible because utilizing flow regulation enhances system stability, minimizing sensitivity to pressure fluctuations. Please refer to our Shaft seal flow control webpage for more information about flow regulation.

