Are you experiencing lumps and blockages in your cement silo, or a decrease in cement strength? These issues can be caused by less than optimal grinding and storage conditions. Our SiloSafe Cement service helps you prevent or remove the conditions that cause these issues, so you can stay focused on delivering a high-quality product and running a successful business, achieving consistent revenues.

What is silo-safe cement?

Water is always present during cement production, but it’s vital to avoid the premature reaction of cement with water – known as prehydration.

Cement prehydration can happen when the combination of water and temperature in the mill is not optimised. In the silo, prehydration usually occurs when moisture evaporates during storage and reacts with the cement. This results in lumps and blockages in the silo, and can produce setting problems and lower cement strength.

Whether you already struggle with issues in your existing mill or have just installed a new mill and want to avoid problems, this service will support you.

Benefits

- Produce high quality cement
- Optimise mill operations
- Improve mill availability and reliability
- Safer working conditions for plant staff
- Stop unplanned silo maintenance

Our SiloSafe Cement service addresses issues such as impeded cement quality development, lump formation, and coating on silo walls, which are all related to cement prehydration in the grinding process and cement storage silos.
Improve safety by minimising silo cleaning

You might have tried to treat the symptoms of silo issues, perhaps trying to clean the silo, breaking up lumps with improvised or expensive techniques. But silo cleaning is not a standard or desirable operation and it poses significant safety risks for personnel.

In contrast, our SiloSafe Cement service solves the root cause of issues and is efficient, accurate, sustainable, and safe. It offers significant economic benefits, eliminating unplanned stoppages, reducing product waste, and minimising the need for extra inspections and silo cleaning.

Altarnatives to SiloSafe Cement service and their costs

This figure shows a cost comparison of different options to address prehydration and silo issues. The SiloSafe Service from FLSmidth offers the most cost-effective solution.

Deliver high-quality cement

Early hydration of cement in silos or mills compromises the final product quality, for example, in terms of longer setting times or loss of compressive strength.

Whether you already struggle with these issues in your existing mill or you have just installed a new mill, the SiloSafe Cement service is a proven way to ensure your mill is operated optimally to help prevent prehydration and achieve important quality parameters.

Proven process for the best results

Our SiloSafe Cement service follows a consistent, proven process to ensure the optimal outcome for your operations:

- Laboratory testing of feeding materials and cement products to analyze the root cause of existing issues and identify problem areas.
- A thorough examination of test results and site data by our most experienced specialists.
- A detailed report, including:
  - Laboratory test results
  - Recommendations for improved cement quality
  - Steps needed to prevent prehydration or correct silo problems

A site visit by a local FLSmidth operational service, commissioning, or process engineer to optimise mill operation, train operators, or help implement recommendations can be offered but it’s not a part of the standard service.

Contact an FLSmidth specialist to take advantage of our SiloSafe Cement service at silo.safe@flsmidth.com