Powering Progress: Continuous Improvement in Chlor-Alkali Power Conversion

Maurizio Stucchi, Head of Industry – Hydrogen - Service

Friem S.p.A, Milano, Italy, sales@friem.com

https://friem.com

ABSTRACT

Driving continuous improvements in sustainable chlor-alkali production necessitates a holistic approach, encompassing both operational responsibility and technological advancement.

This presentation will explore FRIEM S.p.A.'s strategies for achieving this balance. We will delve into the critical role of power conversion systems, specifically transformers and rectifiers, in optimizing energy efficiency and minimizing environmental impact within chlor-alkali plants. Given that all energy utilized in electrolysis passes through these components, advancements in their design are paramount. We will showcase the latest power conversion topologies employed in diverse chlor-alkali installations, highlighting the key drivers behind these design choices. This includes a focus on reducing lifetime losses through innovative engineering, and the revamping of existing equipment to extend its lifespan and enhance customer competitiveness.

Furthermore, we will discuss how FRIEM addresses sustainability through responsible practices in personnel management, customer relationships, and supply chain engagement. This presentation will provide insights into FRIEM's commitment to continuous improvement and its dedication to fostering a more sustainable chlor-alkali industry through cutting-edge power conversion technologies.

Keywords:

Energy, power conversion, sustainability