

Chlorine/Electrolysis

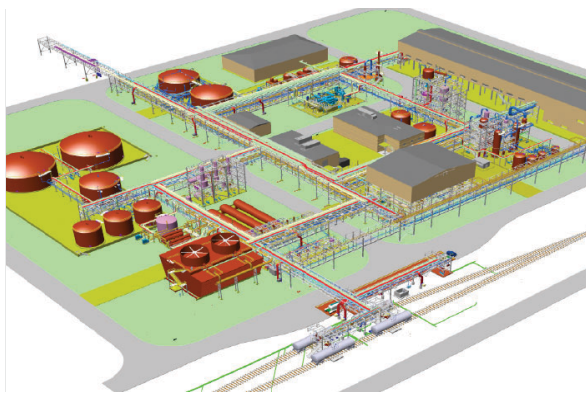
Chlor-Alkali Electrolysis: The expertise of a global corporation

Our service ...

With more than 90 years of experience as an operator of chlor-alkali electrolysis plants, Bayer is a trendsetter for

- High-level plant safety,
- Economical production of chlorine and caustic soda,
- High supply reliability.

At Bayer Technology Services, we leverage this experience to offer you tailor-made solutions for building new plants, or for expanding or modifying existing ones. In this context, we concentrate not only on the electrolysis cell, but also on other process stages and optimizations developed specifically for chlor-alkali electrolysis by Bayer Technology Services. Furthermore, we are a capable partner when it comes to profitability and safety studies.



3-D model of a chlorine electrolysis plant

Bayer is one of the world's largest chlorine producers. Its activities in this field focus on the safe and cost-efficient manufacturing of chlorine and by-products. Bayer Technology Services is now making its unique expertise available to customers.



Reference plants boast the following advantages:

- High-level plant safety
- Economical production of chlorine and caustic soda
- High plant availability
- High degree of automation
- Low maintenance expense and effort
- Suitable material selection for a long service life.

Bayer Technology Services constantly documents and leverages the experience it gains from day-to-day plant operation. Thanks to this continuous feedback, we are capable of offering solutions that permanently improve the efficiency of production processes.



Cell room, Baytown, USA

... is your gain.

Bayer Technology Services provides you with practice-tested solutions developed in our pilot plants and adapted to current needs in our reference plants. Our Materials Engineering specialists are available to assist you, as are our experts for process simulation. We always find optimal results to ensure your success.



Bayer Technology Services

After executing numerous plant conversion projects, Bayer Technology Services has the expertise necessary to develop concepts that ensure an uninterrupted chlorine supply even under difficult conditions. In this work, we also draw on the experience we have acquired with various electrolyzer manufacturers.



Salt storage & Brine treatment, Dormagen, Germany

Bayer Technology Services has developed own technologies for salt handling and chlorine treatment. They are characterized by robust operation and lead to significant savings in production.

The safe and optimized operation of chlor-alkali electrolysis plants depends to a great extent on highly qualified employees. To promote the corresponding qualifications, we offer training courses during commissioning or at our own facilities.

References

With a chlorine capacity of some 1.4 million tons, Bayer is one of the largest global players in this industry. Ninety percent of all chlor-alkali electrolysis facilities have already been converted to the energy-saving membrane process. Bayer Technology Services was a decisive contributor to all new plants and plant modifications. The functions we fulfilled range from owners engineering all the way to taking responsibility for complete plant construction projects.

Bayer Technology Services also has extensive experience in the field of HCl electrolysis. Roughly 200,000 tons are manufactured at Bayer by this process. In line with the principle of "technological expertise for the entire life cycle of processes and plants", Bayer Technology Services developed the process in the lab and then successfully implemented it in full-scale operation.

Another very successful area of Bayer Technology Services is the sale of plant units and components. In 2004, we were awarded contracts to supply a salt transport and storage installation, as well as several chlorine drying systems. Our services include engineering design, delivery of key equipment's, supervision of erection and the support during start-up.



Chlorine electrolysis plant, Baytown, USA

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