



 **PERMASCAND**

ELECTROCHEMICAL  
SYSTEMS

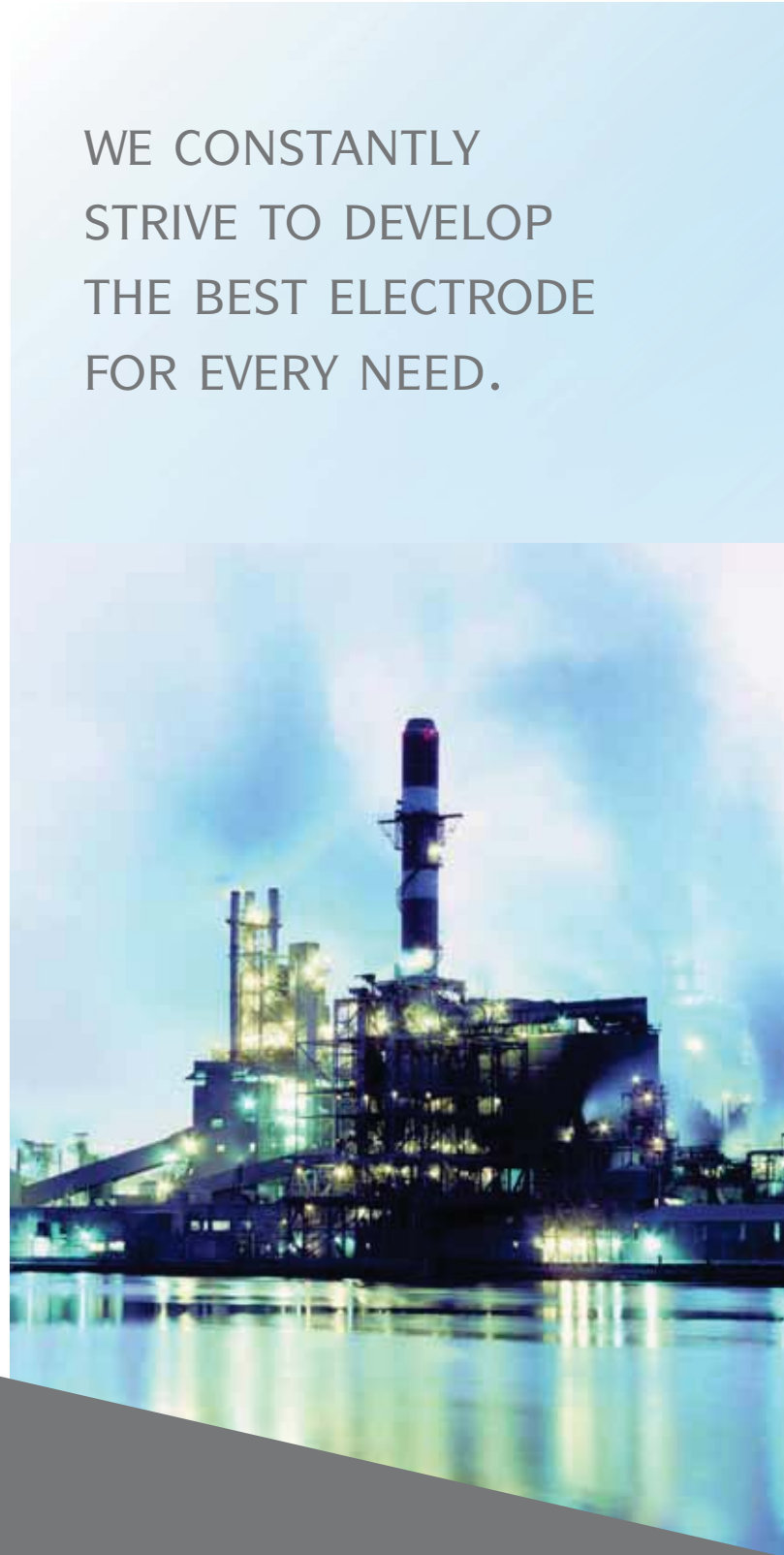
## Electrodes and Cells for electrochemical processes

Permascand has supplied DSA® (Dimensionally Stable Anodes) electrodes with catalytic coatings to the electrochemical industry for more than 35 years and therefore helped save an amount of energy corresponding to the yearly production of one nuclear power station in Sweden.

Permascand offers an extensive range of anode and cathode models with various types of catalyst coatings suitable for a variety of electrochemical processes.

For many years, Permascand has played an important role as maintenance workshop and manufacturer of electrochemical monopolar/bipolar cells for chlorate production and membrane cells for chlorine production.

WE CONSTANTLY  
STRIVE TO DEVELOP  
THE BEST ELECTRODE  
FOR EVERY NEED.



## Various applications

Permascand offers various types of catalytic coating exemplified by:

- Sodium Chlorate Cell Anode Coatings
- Chlor-Alkali applications
  - Membrane Cell Anode and Cathode Coatings
  - Mercury Cell Anode Coatings
  - Diaphragm Cell Anode Coatings
- Special Electrodes
  - Electrowinning
  - Water & Metal Management
  - Water Electrolysis
  - Corrosion Protection

## Manufacture of DSA®

(Dimensionally Stable Anodes)

We have the capability and know-how to manufacture any cell design or tailor-made electrode out of titanium, nickel and steel.

## Catalytic Coating

Permascand has one of the most modern electrode coating plants, with the capacity to accommodate most structures and electrodes sized up to 3 m<sup>2</sup>.

## Refurbishment & Repair

We have the capability and know-how to refurbish and repair old titanium and nickel electrodes of any shape.

For a number of cell technologies in the field of chlorate and chlor-alkali production, refurbishment of cells is also offered.

## Technical Services

Our experienced staff provides technical assistance and support to the Sodium Chlorate & Chlor-Alkali Industry.

We have specialists in corrosion, brine impurities, process optimization and related matters.

## Research & Development

35 years of in-house experience of electrode production, senior expertise and access to competence in Eka Chemicals and AkzoNobel have established a solid ground for our research & development activities. Our R&D personnel are of high academic level and possess a world wide network that consists of research institutes as well as universities, mainly in Europe and North America. Many R&D projects push the front of technology to new heights leading to novel and innovative products within, but not limited to, the electrochemistry industry.

## Design & Engineering

Permascand's lengthy experience and high degree of know-how of lightweight, strong and maintenance-free metal constructions – mainly in titanium – enable us to meet customer demands at an early stage.

Starting from a problem or a need, we design customized solutions with structural analysis and manufacture.



## From 10,000 metre heights to 3,000 metre depths

Permascand is one of the leading producers of electrodes and electrochemical equipment, serving process industries worldwide.

On account of the stringent requirements in this field for material strength, weight and resistance, Permascand has developed high level of know-how in the forming and welding of titanium, as well as the design and engineering of customized products in titanium and other materials.

This manufacturing know-how in titanium equipment serves the offshore, process, marine and defence industries in Scandinavia, Europe and worldwide.



### The range of services includes

- production of electrodes with catalytic coatings
- refurbishment of electrodes and electrochemical cells
- design, engineering and production of lightweight, strong, corrosion resistant products for various markets
- sale of titanium materials and fabricated components
- research, development and innovation

Certified according to:

