



 **PERMASCAND**

TITANIUM
BUSINESS

Solutions for extreme conditions

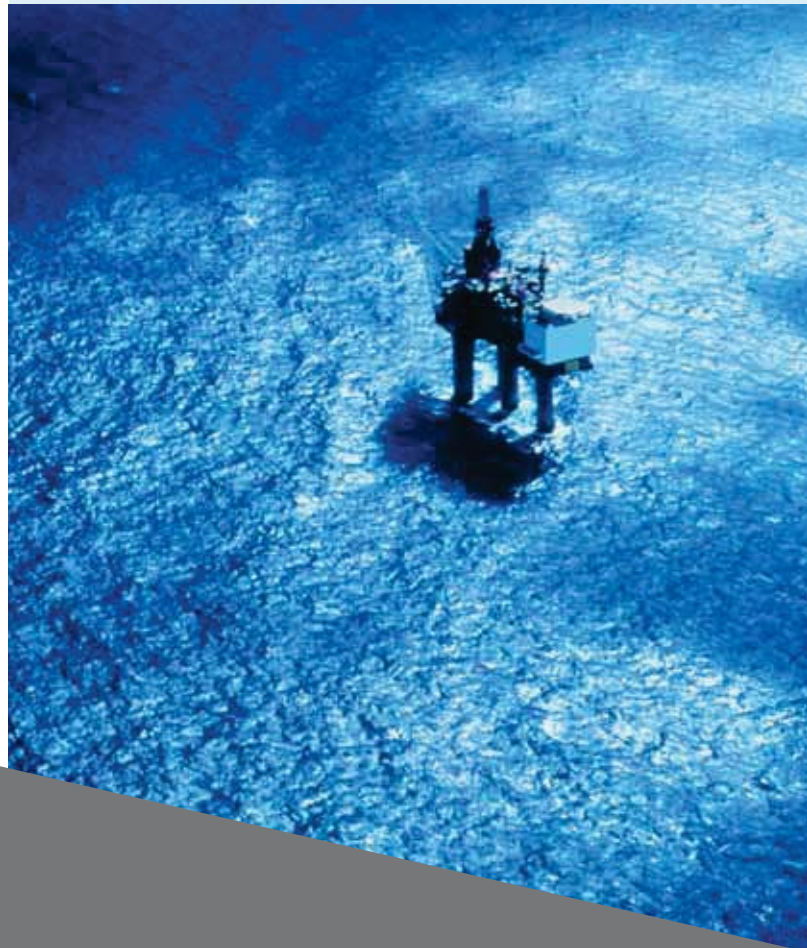
With experience of titanium products reaching up to 10,000 metre heights and down to 3,000 metre depths, Permascand meet the highest demands for material strength, weight and resistance.

We have developed a very high level of know-how, and use our expertise to serve customers in the offshore, marine, process and defence industries in Scandinavia, Europe and around the globe.

Permascand's considerable experience and know-how in producing lightweight, strong, 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 based on structural analysis. Permascand has the resources needed for complete project management, from research, development and planning to prototype evaluation and manufacturing.

Permascand has the largest stock of titanium material in the Nordic countries, and possesses invaluable knowledge about the material, its potential and its areas of application.

OUR MOTIVATION
IS CURIOSITY AND
THE AMBITION TO
EFFECTIVELY MEET
THE CUSTOMER'S
NEEDS.



Solutions

Permascand delivers customized solutions, born of intelligent design and precision engineering. We handle the process from the definition of the problem to the drawing board and the finished product.

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 long 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.

Manufacturing

Permascand manufacturing capacity includes the following resources and techniques:

- Welding: TIG, plasma, laser equipment
- Forming: cold and hot
- Machining
- Surface treatment
- Non-destructive testing
- Assembling
- Large stock of titanium material

Services

Permascand offers a wide range of services including turnkey services, project coordination, design and engineering, assembly and testing, transports and onsite work for our customers.

The following examples illustrate just some of the services we offer:

Process industries

- Piping system in which seawater is used for cooling
- Nuclear process pipework
- Vessels and piping in harsh environments

Marine/Offshore

- Exhaust ducting for ships and gas turbines on platforms
- Piping systems for engine cooling, fire fighting etc. for high salinity environments
- Nitrided hydraulic piston rods

Subsea

- Remotely Operated Vehicle frames and pressure vessels for depths reaching 3,000 metres
- Instrument control pods
- Subsea process equipment (equipment and intervention tools)

Military

- Range of fabrication skills for defence contractors, including the manufacture of military vehicles, ships, submarines, torpedoes, munitions and personal protection



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:



 **PERMASCAND**


AkzoNobel
Tomorrow's Answers Today

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