



## Specialists in hydraulic solutions

### FROM SMALL COMPONENTS TO LARGE, WELL-LUBRICATED SYSTEMS



>> Our strength is a flexible organisation with our own production facilities and a strong supplier network. With our experience and know-how, we can find the best solution for the customer quickly. **<** 

Alex Laursen CEO

## Hydraulics for any purpose

At Serman & Tipsmark, we are specialists in hydraulics. Our solutions are found all over the world and in a wide range of products – everything from relatively simple excavators to massive offshore oil platforms that stand on the Barents Sea, at great water depth.

At our headquarters in Brønderslev, we have assembled all relevant functions. We have the full range of expertise. In other words, our customers are assured impartial advice and customised overall solutions within the full spectrum of hydraulics. Development, design, construction, production, testing and delivery.

#### Competent and quick

Our product range covers an extensive range of components. The most common components are always in stock for immediate delivery. Special components are quickly obtained from our global network of partners. Our experienced sales team is always ready with competent advice to help you find the optimal solution.

#### Spot-on service

Irrespective of the task in hand, our engineers and service vehicles are always at your service. We guarantee a quick and professional service, whether it involves a mandatory inspection, troubleshooting, renovation or a fixed service agreement.



>> The fact that we produce hydraulic systems has given us wide-ranging competencies and specialist knowledge. Some of our service personnel have more than 20 years experience in both troubleshooting and installation. <

Per Kristoffersen Sales and Service

>> The vast majority of components, is available off the shelf in our warehouse. The rest is usually just a telephone call away.  $\langle \zeta \rangle$ 

Mette Ring Sales, components

#### FROM SMALL COMPONENTS TO LARGE, WELL-LUBRICATED SYSTEMS



>>> It is important to us that the customer feels secure in the knowledge that we get the job done – therefore, we do everything in-house – everything from welding the tank to assembly and final testing. In addition, we understand the importance of delivering good, usefull documentation.

Morten Nørgaard Nielsen Sales, systems

#### HYDRAULIC SYSTEMS

# Unique and customised

We design, develop and produce speciallydeveloped hydraulics systems and solutions. The systems can be delivered as a complete solution with electrical controls, monitoring and automation.

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At our production facility in Brønderslev, all the necessary conditions are in place to perform any task, and our customers are always assured quick, flexible and totally customised solutions.

### Development of test systems

Over the years, we have built up extensive experience in developing and producing test systems for a wide range of applications. They span everything – from simple, manually-operated systems to large systems with fully automatic touch control and global data collection.

Our test systems are specifically designed for the individual customer and feature the use of different media, including water, water/glycol and hydraulic oil. We have developed test systems up to 6000 bar pressure and 5 MN mechanical stress.



>>> For many of the jobs we are asked to do there is no tailor-made solution. We use our abilities to combine solutions, systems and components and create something new. In that sense, we are somewhat unique compared to other suppliers. <

Mark van den Bosch Sales, systems

OUR HYDRAULIC SOLUTIONS ARE FOUND ALL OVER THE WORLD



>>> Many of our customers are world leaders within their own industry. They include Siemens, Danfoss and FMC Kongsberg. We are only allowed to supply to them, because our products are in a league of their own. <<

Kristian Eis Technical manager

# A wide range of industries

Our experience and know-how has contributed to solutions all over the world and in many different industries:

- Industry
- Offshore/Marine
- Mobile
- Energy

Our systems are scalable and can be incorporated into different applications. Thus, our span is extensive. Both in terms of scope and complexity.

### World-class high pressure units

Special system requirements command special suppliers.

As one of the few suppliers on the market, we are geared up to work with high pressure systems of up to several thousand bar. We offer high pressure systems to all industries – whether it be components, service, hydraulics or test systems.

We have developed our own high pressure intensifier, which enables us to boost various media. In addition, we have a complete range of valves, fittings and tubes for high pressure systems.



We have supplied numerous high pressure hydraulic systems and a large number of test systems for high pressure applications, such as tightening of bolts for wind turbine foundations and for the release of oil couplings. It is a specialised area which we are skilled in and have extensive experience with. We believe the future will move in this direction.

Svend Åge Jensen Sales and Technical Support

#### **INDUSTRY**

#### Hydraulics that get the industry moving

Serman & Tipsmark designs, develops and produces custom made hydraulic system solutions for almost all segments in the industry. These include systems for:

- Mould equipment for wing production,
- concrete production etc.
- Sawmills
- A variety of lifting gear and cranes
- Test systems

Together with the customer, we create specialised solutions based on the latest know-how and technology. Irrespective of its size and characteristics. Our systems have a long lifespan and a minimum of operational issues.

#### CASE: NOV FLEXIBLES The world's largest test bench for Flexible Risers

NOV Flexibles manufactures flexible pipes that transport the oil from the seabed to the surface of the sea. It is extremely important that these pipes remain 100 per cent intact throughout their entire lifetime, even though they are exposed to enormous impacts under widely varying conditions.

Internally, they are under pressure from the oil that is pumped through them, and externally they are often subjected to vigorous pulling and twisting from the ocean currents and waves which, at the same time, often impact on the floating oil platform.

Manager with Serman & Tipsmark.

Lifespan cycle testing

"We can simulate any test scenario whatsoever, in other words, applying any force whatsoever, loads of up to 600 tonnes, but also any type of rough sea scenario. There are huge differences in wave, wind and current conditions around the world, and the system can be set to simulate the precise conditions in a given location," Morten Nørgaard Nielsen explains.



"It is absolutely crucial that the flexible pipes don't leak. It would be catastrophic if the oil gushed out into the sea," says Morten Nørgaard Nielsen, Sales

Serman & Tipsmark has developed the hydraulics and electrical controls for NOV Flexibles test system that is able to simulate the stresses to which the flexible pipes are subjected. This involves a highly sophisticated control system where nothing is left to chance:



#### OFFSHORE MARINE

### Deep-rooted experience

Serman & Tipsmark has a wealth of experience with the offshore and marine industry. Over a period of many years we have supplied components, systems and service to some of the world's leading companies operating in this sector.

Besides ordinary hydraulic oil, we work with components and systems for water/glycol media and with high pressure systems that use pressure of several thousand bar.

We supply components and systems that meet all relevant standards and safety verifications.

#### CASE: MACGREGOR PUSNES Hydraulics at express speed from Brønderslev to Seoul

Four tonnes and a volume equivalent to two hefty Mercedes. Those were the dimensions of the hydraulic station loaded on to the plane to Korea by Serman & Tipsmark in June 2014.

It all happened at breakneck speed. Back in January 2014 Serman & Tipsmark was invited to submit a tender for the hydraulic system for the mooring winches of a Floating Production Unit (FPU). The invitation was accompanied by around 2000 sheets of A4 paper with specifications, expectations and requirements for the finished product.

hydraulic station on a plane to Korea.

A floating oil station

the associated hydraulic station.



The order was secured, and less than six months later Serman & Tipsmark were ready to send the massive

The hydraulic station is part of a larger unit, a so-called FPU (Floating Production Unit). In layman's terms, it is a securely anchored ship that lies off the coast of Congo.

The ship belongs to the French oil company, Total. Norwegian MacGregor Pusnes is supplier of the ship's anchoring winches. This is where Serman & Tipsmark comes into the picture as manufacturer of





#### Maximum space utilisation

Serman & Tipsmark has the right know-how and experience in hydraulics for mobile units such as lorries, forklift trucks, mobile cranes and agricultural machinery.

Here, space is often at a premium and must be utilised optimally. A hydraulic block solution ensures a compact and user-friendly system that minimises tubing, installation time, as well as the risk of leakages.

MOBILE

Development work is undertaken in close cooperation with our customers:

- They know what they want
- We know how they get it

#### саяе: NOVATECH Many components in little space

Novatech's remote-controlled vehicles require advanced lifting equipment that takes up as little space as possible. Serman & Tipsmark took up the challenge and developed a complete hydraulic block solution.

A complete solution in one location Space optimisation, safety and service-friendliness are just some of the keywords in relation to the hydraulic

block solution Serman & Tipsmark produced for Novatech's remote-controlled vehicles. All the valves are assembled on the block.

"That way, a mass of interconnecting tubes crisscrossing one another are avoided. The block solution minimises tubing, which in turn minimises the risk of burst tubes and hoses. At the same time, servicing is also simplified," explains Claus Tipsmark, who helped develop the block.

The result: Novatech saves money on installation time. Their product has become cheaper and easier to produce while, at the same time, servicing has been simplified.



#### case: AALBORG CSP Intelligent solar panels

Aalborg CSP produces Denmark's most advanced solar heating systems for the production of power and district heating. The associated HPU and control unit have been developed and produced by Serman & Tipsmark.

#### Metres and metres of panels

The solar heating systems fill the landscape. The system's twelve metre long panels are assembled in rows, with eight panels in each row, i.e. each row is almost 100 metres long. The panels move according to the position of the sun so that, at all times, the best possible utilisation of the sun's energy is achieved.

This is where Serman & Tipsmark comes into the picture, with the delivery of a single hydraulic station for every eight panels: "We have developed a hydraulic station with controls that, in conjunction with a gear, ensures that the system is positioned optimally in relation to the sun," Sales Manager Morten Nørgaard Nielsen from Serman & Tipsmark explains. The system can produce from 1-30 megawatts.





## Top quality energy

For the energy sector, we provide hydraulic solutions for applications such as wind power, hydropower, bio fuel, solar panel systems and wave energy.

The systems' vital hydraulic functions are often located in places, which are expensive and difficult to get to. Therefore, it is important that operational reliability is second to none. We guarantee quality solutions every time.

#### MORE THAN 500 YEARS' EXPERIENCE



Claus Tipsmark, Co-founder

#### An experienced team

Our employees have more than 500 years' experience in the hydraulics industry. Collectively, admittedly, but never the less. We are proud to have a strong team that is passionate about hydraulics and makes sure that they deliver the best solutions, every time.

Serman & Tipsmark has been in existence since 1994, and several of our employees have been with us from the start. In the case of some, even before then. You see, the company is the result of a merger between two local companies, that decided to merge, combining their strengths to form a single competent player within the hydraulics industry. They achieved that goal very successfully.

Today, around 55 employees work tirelessly to create the world's best hydraulic solutions.

#### Part of Sanistål

In the 90s, Serman & Tipsmark developed a close partnership with Sanistål and in 1999, became a part of the group. With its 1,600 employees, the Sanistål Group is an innovative wholesaler with a complete product range for industry and the construction sector. Sanistål also has a nationwide network of shops in Denmark and is represented in the Baltic states, Germany and Poland.

#### A bright future

After more than 20 years, two of Serman & Tipsmark's original three founders still turn up for work every morning. Neither Claus Tipsmark nor Per Kristoffersen envisaged this back in 1994, when Serman & Tipsmark first saw the light of day. Both of them still firmly believe that the future looks bright for Serman & Tipsmark.





#### Hydraulics worldwide

Serman & Tipsmark is a specialist supplier of hydraulic solutions. We design, develop, produce and deliver customised hydraulic system solutions for the Industry, Offshore/Marine, Mobile and Energy sectors.

- Components
- Service
- Hydraulic systems
- Test systems



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