Don't underestimate our pumps





Knowledge is acquired over time

With more than 100 years of existence we have had to take on many challenges. The pumping- and flow experience Fuglesangs has today, is also the result of a chain of knowledge transmissions from generation to generation.



FUGLESANGS AS

After a century of operation, we are your provider of knowledge and quality products.

Fuglesangs meets the requirements of Norwegian professionals by increasing *MTBF in your pumping systems and plants. By definition, all our products and technologies reduce emissions. When you and we cooperate on saving the environment, we will also succeed in saving money for you.

Fuglesangs is from 2019 Miljøfyrtårn. Fugitive emissions and energy savings are your opportunities to increase your income and make the planet cleaner.

We are proud to have gone through all these years alongside our customers and suppliers. With us you will experience confidence and good reasons to stay on with us.

We deliver optimal solutions. Challenge us!

Erik Michalsen. Managing Director Fuglesangs AS



*Mean Time Between Failure

WHO ARE WE?







Fuglesangs AS (since 1916) is an independent supplier of pumping solutions, equipment and maintenance services to the Norwegian industry and public sector with a high focus on total costs of ownership (TCO). Our motivated and dedicated teams continuously work to develop innovative technical solutions that creates results with regards to availability, efficiency, security and environment.

Fuglesangs has one of Norway's most complete facilities for optimization of pumps and motors. In addition to pumps, we also restore mechanical shaft seals and hydraulic cylinders. We cooperate with leading technology companies and can offer advanced digital solutions for monitoring pumps.

INDUSTRIES WE SERVE

DEALING WITH CHALLENGING APPLICATIONS IS OUR CORE BUSINESS.

Our competitive advantage is our ability to offer solutions which reduces total costs for the end-user. This includes supplying new equipment, installations of same, performing repairs, fabrication, upgrades, modifications, as well as taking on preventive maintenance or system design-related tasks. We work in our in-house facilities or at the customer location, whichever is most convenient.



MARKETS AND INDUSTRIES WE SERVE (EXAMPLES)

- Agriculture Biodiesel Biotechnical Car, Vehicle washing Chemical & Petrochemical Chip Board Manufacturing Cleaning & washing Construction Consultants Electronics Emissions & Environmental control Energy & Power generation Energy recovery'
- Flue Gas Emission control Food & Beverage Processing General industrial & Manufacturing Glass & Clay Industrial plumbers Marine Machine tool suppliers Mining, quarrying & processing Offshore drilling & Processing Offshore service companies Oil & Gas & petrochemical Paints, Coatings, sealants & adhesives Pharmaceutical
- Polyurethane Propellant packaging Pulp & Paper Rail and road transportation Reverse Osmosis & Filtration Rubber & plastic Smelters Spray drying Steam generation Steel industry Textile industry Water & Wastewater



Your hydraulic cylinders -Available everywhere at any time

From design to final installation, Fuglesangs delivers and take care of the most optimal hydraulic solution based on your needs. We can also provide maintenance and repairs services.

We are specialists at increasing hydraulic cylinder Mean Time Between Failure.

HYDRAULICS

As supplier of hydraulic seals since 1982, we have a deep knowledge that ensures our customers to get the best solution tailor made to their needs. Our hydraulic Workshop repairs and upgrades hydraulics since 1990. Fuglesangs delivers high quality hydraulics to the Norwegian Industry since 1994. We have on-site surveys for special solutions and offer from standard to special

cylinders, power-packs and sensors. Our state-of-the-art optimization program reduces considerably the total costs.













INDUSTRIAL

Fuglesangs chemicals covers a wide range of applications thanks to its solid partners, our unique

quality of industrial Lubricants & MRO products is very appreciated by its users onshore and offshore.



INDUSTRIAL LUBRICANTS

- Industrial greases
- Industrial oils

RUST STOPPERS CONCRETE SEALER CLEANERS AND DEGREASERS

- Acid-based
- Alkali-based
- Solvent-based

CORROSION INHIBITORS/COATINGS METALWORKING FLUIDS

MAINTENANCE SPECIALTIES

- Anti-seizes / parting lubricants
- Automatic lubricant dispensers
- Bearing housing seals

Take contact with one of our experts!













PIPE COLD REPAIR

We are proud to introduce into the Norwegian industry, innovative composite repair solutions for **pipes and pressure vessels.** Fuglesangs offers also composite repair systems for structural and line pipes suffering from corrosion, wear or mechanical damage. We can do the repair jobs onshore and offshore, both over and under water – no limits to pressure or diameters.

With patented technology and products, we can seal leaks on pipes under pressure- up to 80 bar, without depressurizing the pipe. From flanges to structural repairs, our dedicated expert teams are at your side to fix your installations.

Our repair kits are easy to stock and can easily be used at any time in case of emergency.















Pumping systems: The heart and soul of Fuglesangs

To describe Fuglesangs is to describe the history of the Norwegian industry since many years.

From small installations to the most powerful pumping systems in Norway, we participate to the success of many companies.

TETNINGSVERKSTE

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We love our job and are very proud to provide companies and cities of Norway the latest engineered pumping solutions that allow them to obtain the most efficient results with absolute respect for the environment.

We reduce costs and improve results because we are experts in flow optimization.



PUMPS PUMPING SYSTEMS





Fuglesangs is appreciated by demanding users, who wish to find specific and precise answers to their needs. Selling a pump is one thing. Designing a pumping system from A to Z for a very specific process is another thing.

We work in close collaboration





with the most famous pump manufacturers in the world, which opens for Short lead times, attractive prices, and high-tech products.

Our highly qualified engineers have been carefully selected and trained. They are ready to respond to any type of challenge you might have.





We design pump skids and engineered fluid systems for injection, drilling mud return, metering, cleaning, etc.

The most common pumping systems we create are based on vertical and horizontal centrifugal pumps. Dry installations, or submergible configuration.

We also provide positive displacement pumps like progressive cavity pumps, diaphragm pumps, gear pumps, peristaltic pumps, screw pumps, lobe pumps and plunger pumps.

PUMPS CENTRIFUGAL PUMPS

With one of Norway's largest selections of pumps from world leading manufacturers, we can offer everything from simple norm pumps to powerful heavy-duty pumps and magnetically driven pumps for most all purposes. Capacity up to 68.000 m3/h and pressures up to 400 bar, according to DIN, ISO or API standards.



PUMPS POSITIVE DISPLACEMENT PUMPS

For high pressure, viscous media, injection, metering, dosing, etc. Capacity up to 1500m3/h and pressure up to 1000 bar. ISO and API 674, API 675, API 676 available.

















PUMPS DE-WATERING PUMPS



Mechanical seal reconditioning

We have a US certified seal repair workshop which make us one of the few company in Norway able to repair and recondition your mechanical shaft seals – all brands – all manufacturers.

Thanks to complete state-of-the-art facilities for mechanical seal repair, we give a second life to your mechanical seals.

We can also modify the design to increase lifetime.

Save money and gain productivity. Call Fuglesangs.

SEALING PRODUCTS

MECHANICAL SEALS AND SPECIAL SENSOR-SYSTEMS FOR DIGITALIZATION

We select high quality mechanical seals for various applications. The establishment of IoT (Intelligence of Things)







pushes companies to develop interconnectivity and digitalization.

The latest generations of mechanical seals help to understand failures, they record and communicate their status: By scanning with an RFID reader, you obtain related pressure, temperature, vibration test reports, device drawings, mechanical seal description, serial number, product item number, seal construction materials, installation instructions and other helpful data.

Industrial seals, API seals, Component seals, Cassette seals, Split seals, Gas seals, Mixer seals, Water turbine seals, Gearbox seals.





SEALING PRODUCTS PACKINGS, GASKETS & ENGINEERING POLYMERS



Fuglesangs offers a wide range of packings, gaskets and polymer sealing solutions for static, rotating and reciprocating applications. Recognizing time is money, Fuglesangs has developed and manufactures the "Jetex" packing extractor to quickly and efficiently remove old, hardened packing from valves, utilizing just water and air. The Jetex is available for sale, rental or through service that our skilled team can provide.

SEALING PRODUCTS PACKINGS, GASKETS & ENGINEERING POLYMERS



We have complete programs for plants and ships for sealing of pumps, valves, flanges and other critical process joints. Ask for our proposal for standardization. Fuglesangs sealing solutions focus on improving overall reliability while reducing emissions and the total cost of ownership.

Services

In our highly equipped Workshop, we restore pumps of all makes and models, as well as other rotating equipment.

By using advanced ceramic polymer composites, we can coat pumps and other equipment in order to significantly increase the corrosion and erosion resistance.

Thanks to the composites extremely low surface energy we also increase the energy efficiency of the pump.

SERVICES





INSTALLATION

We ensure the most appropriate pumping systems installation from the beginning, and make sure its performance is maximum, because only a professional commissioning made by experts allows the optimal use of pumps and pumping systems.

ENGINEERING

Most industrial projects are based on the know-how of engineers.



The engineering by FUGLESANGS, is based on the deep expertise of our engineers in flow optimization: we create and design pumping systems every day, from the very simple installations to ultra-complex systems, for small companies to large facilities.

TRAININGS- COURSES

Typical themes are, choice of the right pump for the right application

or how to install and maintain pumps. If you are looking for courses, then we can help you and provide the most efficient pump training course for one or several of your employees.

REPAIRS

Thanks to our partnerships with leading global pump manufacturers, we have access to a wide program of spare parts. Our pump and hydraulic repair teams are ready to serve you worldwide.

25 tons of crane capacity allows us to lift the heaviest pumps. All pumps are cleaned, disassembled and appraised. We make a report that shows you the causes of the failure allowing you to decide on repair, modification or replacement.

MAINTENANCE (corrective-, periodic- and predictive maintenance) We maintain all kind of industrial pumps from time to time maintenance to "guaranteed pump maintenance service contracts" We build together the customized solution that will fulfill your needs, at affordable price.

Our team of experts is fully equipped to join you fast in case of any needed troubleshoot.

Thanks to our unmatched Knowhow in various industries and applications, we make sure your pumping system works perfectly. Our aim is that you get even better performance for each pump while increasing their service life.

COMPOSITE

Fuglesangs has for more than 20 years performed composite coating in their own workshop and out at the customer's facilities. We use advanced resins with ceramic reinforcements to protect



against abrasion, erosion, corrosion and chemical attack.

The products are characterized by having immense adhesion and we can supply surfaces with great hardness.

TESTS

Up to 2,5 MW is available in our workshop to provide tests of industrial pumps.









We have tested up to 3000 m³/h. We supply new pumping assets from leading global major manufacturers.

Thanks to a large test pool of 220m³, we test a wide range of pumps

including flow and pressure testing, failure analysis, etc.

We can also provide FAT tests, helping global pump manufacturers to do such tests close to the end-users.





Together, for a better future

Become our business partner and increase your value!



YOUR TRUSTED PARTNER



THROUGH GOOD DISTRIBUTION

The world is changing, the industry is changing, Fuglesangs is changing. We are developing a new program of partnership with many distributors in Norway. Available stocks combined with good technical advice are the most efficient way to answer to customers need of quick delivery. Knowledge is the key: Fuglesangs also provides detailed technical trainings for the distributors to ensure the best understanding of the end-user's situations, and how to find the most optimal solutions. Join us, become a partner of Fuglesangs and take advantage of our Marketing and sales campaigns.

WE CAN **FUEL** YOUR IMPROVEMENT PLAN THROUGH

Fuglesangs Launch and Learn Program (FLLP)

ASK FOR A ONE HOUR PRESENTATION

If we together can agree on your and our input, we will offer you a 2-day free workshop covering engineering, logistics and commercial analysis – a basis for your decision to enter FLLP

The success of the program is, how you and we engage in the understanding of

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The good thing about Fuglesangs Launch and Learn Program is that we measure your savings and your improvements in equipment availability.

CALL OUR SWITCHBOARD FOR MORE INFORMATION, ALL OUR EMPLOYEES KNOW ABOUT "FUGLESANGS LAUNCH AND LEARN PROGRAM"



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