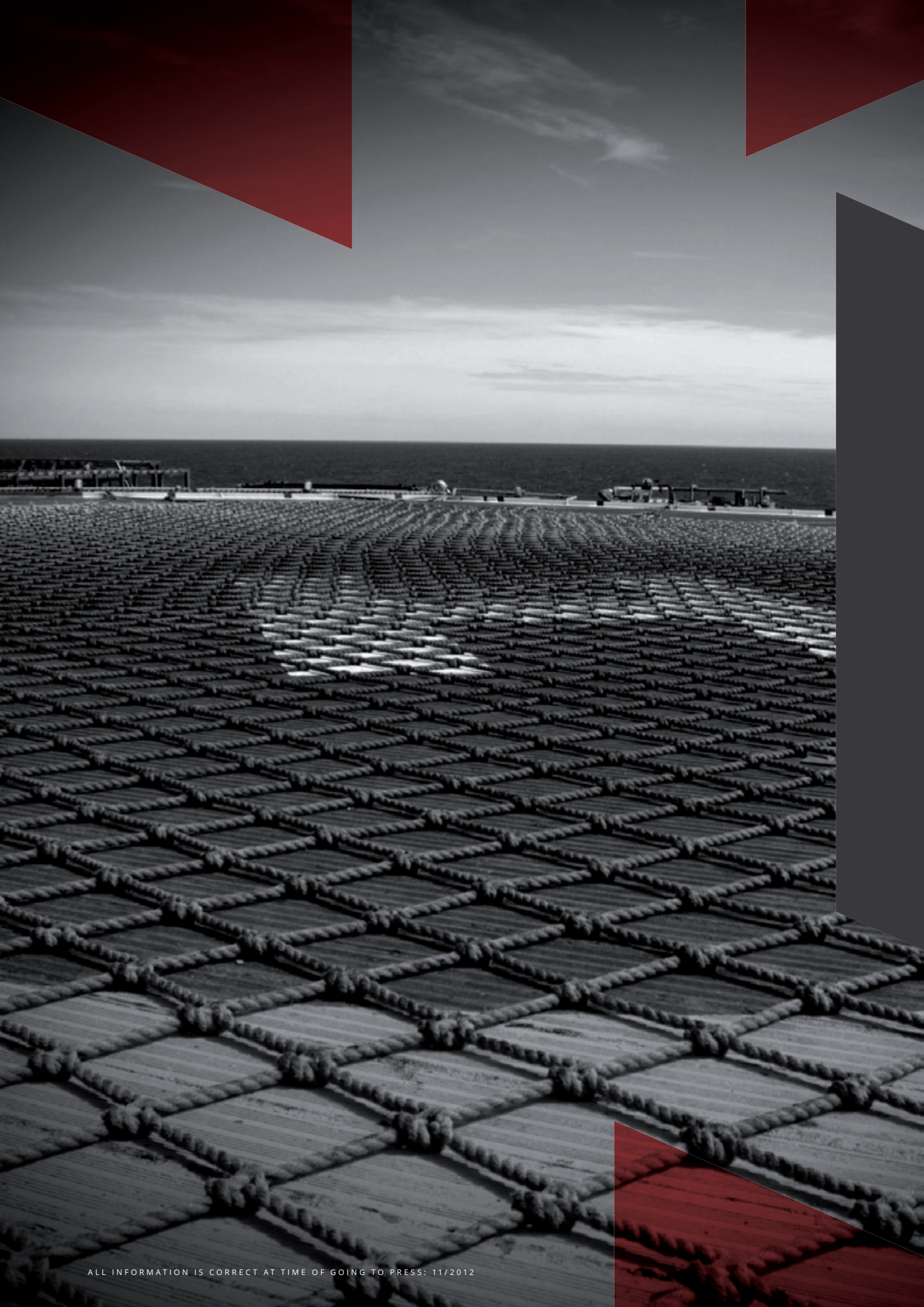
Aviation Fuelling Systems

ENGINEERED TO THE BEST

AVIATION | DIVING | ENGINEERING & DEVELOPMENT | LIFTING & HANDLING | SUBSEA | WORKSHOP

imenco
SMART SOLUTIONS



ALL INFORMATION IS CORRECT AT TIME OF GOING TO PRESS: 11/2012

Imenco

Imenco is a major EPC-contractor to the maritime industry. We design, develop, and manufacture a wide range of systems and products such as Diving Systems, Helicopter Refuelling Systems, Ex Cameras, Lifting and Handling products, Subsea Cameras and Subsea Tools including Subsea Lights and Lasers. Our customers benefit from over thirty years' experience in the industry, adding value and providing smart solutions.

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Introduction

Imenco's history goes back to 1979 and through the acquisition of Setec Contracting in 2005, Imenco gained 28 years of knowledge and experience within the aviation fuelling industry.

Today, with more than 30 years of experience, Imenco is one of the leading companies in this field and has set the standard for high quality, cost efficient and customer orientated Helicopter Fuelling Systems. Having one of the worlds best production lines for Helicopter Fuelling Systems, Imenco can offer in-house engineering and design with an excellent service, which maintains customer satisfaction. The following pages will pin point our experience and quality that gives you the value needed from your provider of Helicopter Fuelling Systems.

Bristow

Systems and Regulations

IMENCO MANUFACTURE A WIDE RANGE OF SYSTEMS WITHIN AVIATION FUEL INDUSTRY AND THE MAIN PRODUCT IS HELICOPTER FUELLING SYSTEMS FOR USE OFFSHORE.

With a proven track record, Imenco is a preferred vendor for offshore installations worldwide.

In close relationship with Faudi Aviation in Germany, and other well known and branch accepted manufacturers of high quality components, Imenco manufacture the best products available, with a life span of up to 40 years.

Systems are designed and manufactured according to stringent international and national standards. Service and maintenance are performed globally and we take pride in our quality and are reluctant to compromise with our high standard.

Imenco is approved by Achilles and DNV, and our integrated management system is certified according to NS-EN ISO 9001: 2008.

The systems are based upon CAP (Civil Aviation Publication) 437, as requirements necessary for the fuelling of helicopters on offshore installations and vessels.

The information in CAP 437 has been compiled by UKOOA in consultation with the offshore industry.

Other relevant regulations are:

- CAP 074 Aircraft Fuelling, Fire Preventions and Safety Measures.
- CAP 434 Aviation Fuel at Aerodromes.
- CAP 748 Aviation Fuelling and Fuel Installation Management.

For the Norwegian sector of the North Sea, OLF have an additional regulation called “Helideck Manual” and we have systems built according to NORSOK standard.

Our design is approved by DNV, BV and ABS. Pressure vessels designed by ASME VIII in general; other codes are available on request.

Transportable tanks are provided with certificates according to DNV 2.7-1. Transport frame supplied with test report and separate certificate. Filter system approved according to EI 1581 and EI 1583.

With emphasis on top grade material and workmanship our Aviation Fuel Systems are delivered according to client’s specification and international standards.

Aviation Fuel Dispenser Unit

IMENCO'S STANDARD DISPENSER IS DESIGNED TO FULFIL REQUIREMENTS FOR HELICOPTER FUELLING SYSTEMS WORLDWIDE AND CAN EASILY BE UPGRADED TO PROJECT SPECIFIC REQUIREMENTS.

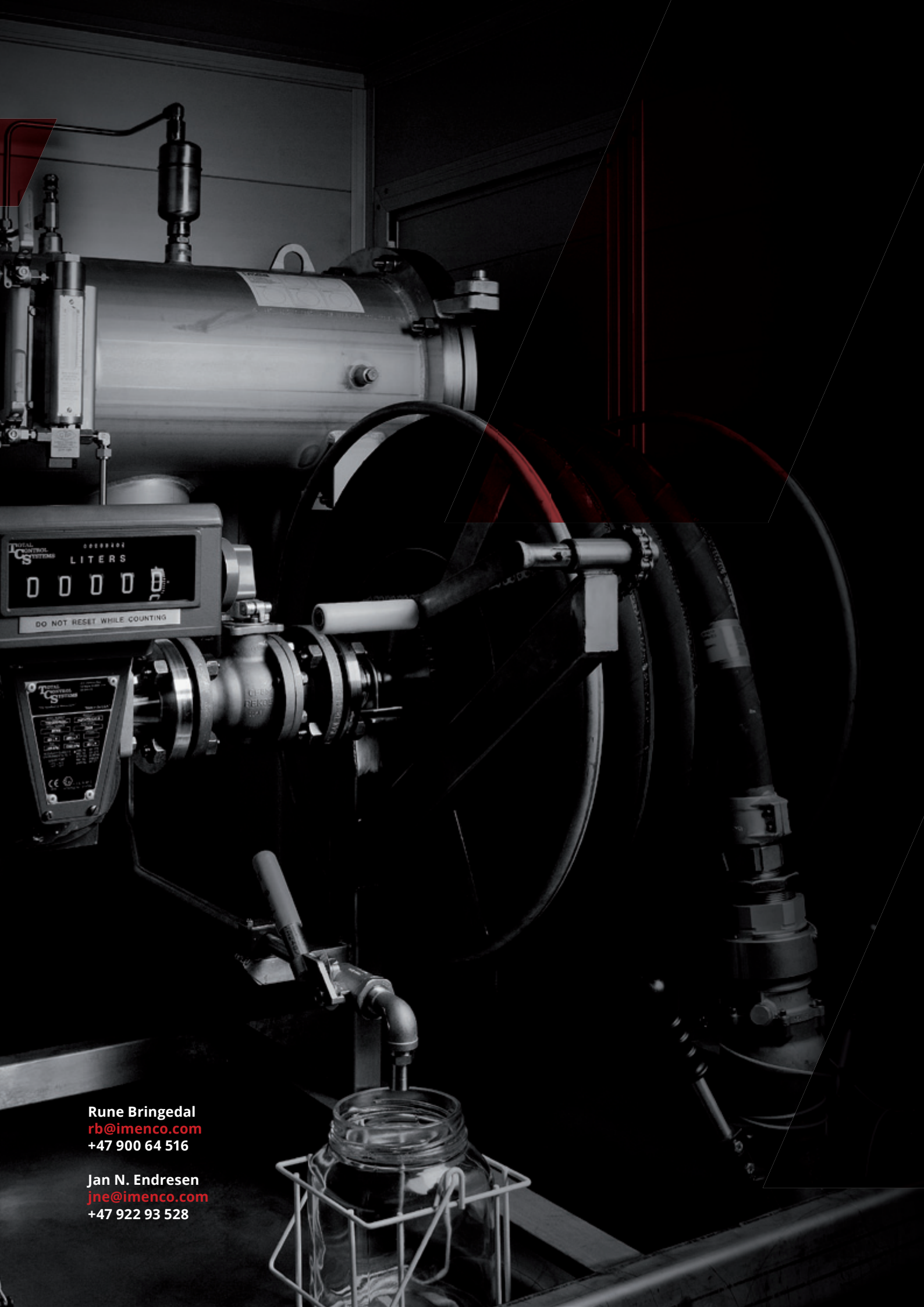
The dispenser unit is designed for safe and easy operation. A number of options can be chosen for the standard dispenser, to comply with specific client specifications. The standard design is based on a stainless steel drip tray/base frame and enclosed with an aluminium shelter of high offshore quality. This gives the unit a life span of up to 40 years.

Standard equipment

- Triple filter (separator and monitor) latest edition EI 1581 and EI 1583 (previously known as API 1581/1583)
- Flow meter with mechanical register
- Instruments
- Local control panels
- Hose reel
- Filling nozzle
- Grounding system
  - Grounding reel with breakaway device
  - Grounding Tester with automatic shut down
- Yellow/Amber flashing or continuous light

Optional equipment

- Afguard, water sensor for instant control of water content in fuel and auto stop on high level
- Electronic flow meter
- Control panel with full communication with master system
- Closed sample system with sample glass
- Cabinet for storing samples and sample equipment



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Aviation Fuel Pump Unit

THE IMENCO AVIATION PUMP UNIT CAN BE DELIVERED WITH DIFFERENT OPTIONS DEPENDING ON REQUIREMENTS AND PROJECT SPECIFICATIONS.

According to latest edition CAP 437, May 2012, all systems should be equipped with a twin pump unit, in order to provide redundancy should one pump fail in service. The Imenco standard design is based on a stainless steel drip tray/base frame and enclosed with an aluminium shelter of high offshore quality.

Standard equipment

- Sliding vane pump
- Electrical or pneumatic motor
- Strainer
- Instrumentation
- Filter and regulator (lubricator if air motor)

Optional equipment

- Motor control centre
- VSD drive on motors
- PSV - full flow
- Filter Separator

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Aviation Tanks and Skids

TRANSPORTABLE TANKS ARE DELIVERED WITH THE NECESSARY APPROVALS, SUCH AS DNV 2.7-1. EN12079, IMDG OR ADR/RID.

Designed to CAP 437, ASME VIII Div.1, tested to class company and IMDG code. The materials used to construct the tanks are normally stainless steel with mild steel lifting frame. Our standard transportable tanks are 2,900 litres, other capacities can also be delivered.

Standard stainless steel storage tanks are normally delivered with a capacity from 4,000 to 24,000 litres. Materials and approvals according to project specific requirements can be provided. Lay down skids will be provided with a protection frame that can be used to support the deluge system.

We are also able to include a fire fighting system in the form of deluge systems and sprinkler systems. Quality and materials are often either galvanized steel, SS316L, Cu-Ni or titanium.

Storage tanks are preferred at installations where fuel consumption is significant.

Various standard skids

- Skid for 1 off transportable tanks
- Skid for 2 off transportable tanks
- Skid for 3 off transportable tanks
- Skid for pump unit and 2 off transportable tanks
- Skid for pump unit and 3 off transportable tanks
- Release frame for 2 off transportable tanks
- Skid for pump unit and 1 or 2 off storage tanks
- Skid for 1 or 2 off storage tanks

Recycle system can be installed on any of the above mentioned skids.

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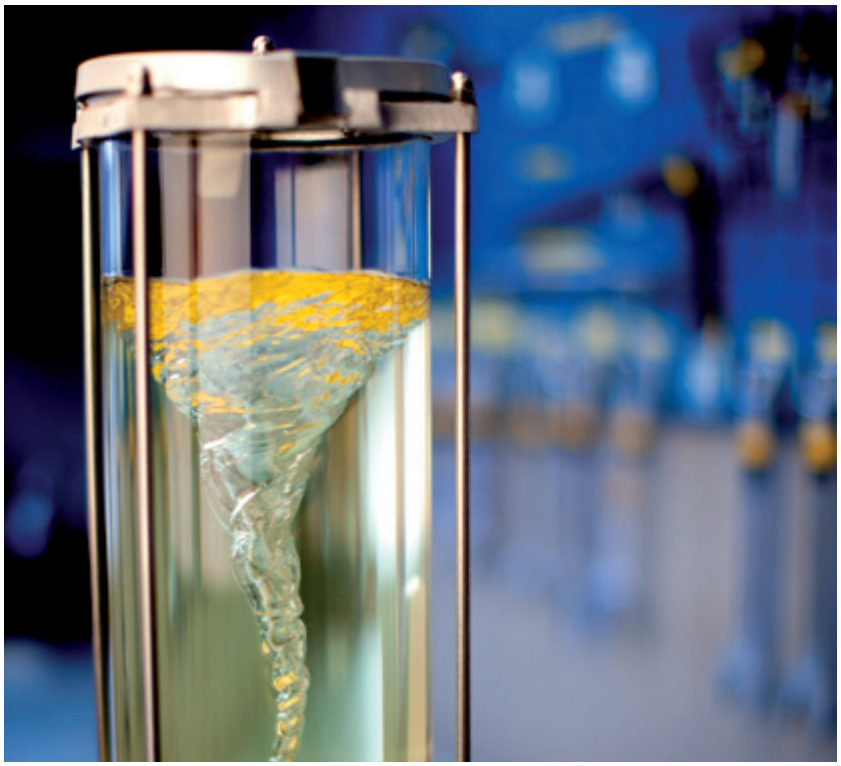
Aviation Test and Recycle System

A SEPARATE STAND-ALONE UNIT FOR FUEL TESTING AND RECYCLING EQUIPMENT IS AVAILABLE FOR OPTIMAL ENVIRONMENTAL CONTROL AND SAFE OPERATION.

The cabinet is connected to the fuel storage tank and dispenser unit. The fuel will be handled in a closed system, avoiding spillage and exposure of fuel for the operator. After a sample has been taken and controlled, the fuel samples will be stored in a separate enclosed tank within the unit. The fuel will be filtered before it is transferred back to the storage tank. Our standard design is based on a stainless steel drip tray/base frame and enclosed with an aluminium shelter of high offshore quality. This gives the unit a life span of up to 40 years. Other required equipment can be integrated as an option.



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Faudi Aviation GmbH

FOUNDED IN 1938 BY FRITZ FAUDI AND CONTINUOUSLY INVOLVED IN THE FILTRATION AND SEPARATION OF AVIATION FUELS, INDUSTRIAL LIQUIDS AND GASES. IMENCO IS AN EXCLUSIVE REPRESENTATIVE IN NORWAY AND THE USA.

FAUDI aviation
quality guarantees safety

Faudi Aviation are an active, worldwide company, well known in the field of aviation fuel filtration. With over 70 years of experience and modern production methods, Faudi Aviation offers highly efficient and cost effective solutions to a range of fuel filtration problems. Faudi Aviation have a highly experienced workforce of engineers ready and able to assist with whatever filtration problems or other requirements you may have. Faudi Aviation also benefits from having the largest, most modern civil Aviation Fuel Test Rig of its kind, enabling continued product development and dynamic testing under controlled conditions of filter elements and systems. Faudi Aviation manufacture world leading fuel quality monitoring equipment, like AFGUARD and DP-GUARD.

Automation and Instrumentation

CONTROL SYSTEMS CAN BE DELIVERED FROM BASIC RELAY CONTROLLED PANELS TO HIGHLY AUTOMATED SYSTEMS CONTROLLED BY PLC.

The most advanced system will be running its own samples, recording and logging the sample results and uploading the status to the master system continuously. Both control panels and MCC can be made for zones 1 or 2 or in non hazardous areas. All of our systems are built in-house by our highly skilled engineers and technicians.

The Imenco - Faudi collaboration

Together with Faudi Aviation we continuously develop and improve fuel filtration systems and products.

Our main production is towards the offshore sector, but in the fuel filtration market we also cover all types of land based installations.

In a combined effort with Faudi Aviation we deliver fuel filtration elements, filter vessels, fuel quality monitoring equipment and technical support to an ever increasing number of customers.

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Inspections and Service

IMENCO IS APPROVED BY THE NORWEGIAN HELICOPTER OPERATORS IN ORDER TO PERFORM ANNUAL SURVEYS FOR HELICOPTER FUELLING SYSTEM ON THE NORWEGIAN CONTINENTAL SHELF.

With our main office located "in the heart" of the Norwegian Oil and Gas Industry, we can easily cover all parts of the Norwegian west coast for small and large service assignments on your installation.

Our services reach beyond Norway, with our network of branch offices and agents, we cover all parts of the world. Our dedicated partners in combination with our highly trained service team, shall give you the valued combination of local representation and qualified service engineers/inspectors.

- We are approved to do inspections on the Norwegian Continental Shelf – on behalf of the Norwegian Helicopter operators.
- We are approved by HCA (Helideck Certification Agency) to do fuel system inspections on installations with a HCA certified Helideck.

- Commissioning and offshore startup of helicopter fuel systems.
- Modifications or rebuilds of helicopter fuel system.
- We offer Technical assistance for offshore personnel.
- We offer service and inspection for a range of products: Pressure Refuelling Nozzles, Pressure/vacuum relief valves for tanks, class company certification of Transportable tanks and similar.
- Upgrade of filter vessel according to EI 1581 5th edition (Separator vessels).
- Upgrade of filter vessels according to EI 1583 6th edition (Monitor vessels).
- Training courses for offshore personnel with main focus on system design, regulations and requirements for HLO/Helideck Crew. (Combined theoretical and Practical Training).
- Based on our long experience, our tailor made inspection program will be made for each installation and our service can include any Helicopter Fuelling System, from any supplier.
- We have calibrated flow meters and gauges that can test and approve your equipment offshore during the inspection.
- Our standard inspection equipment includes a calibrated particle counter, enabling Imenco to make a specific quality test of the delivered fuel without sending samples to a laboratory.

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Spare Parts

BASED ON OUR LONG EXPERIENCE IN THE PRODUCTION, SERVICE AND MAINTENANCE OF HELICOPTER FUELLING SYSTEMS, WE CAN ASSIST WITH ALL SPARE PART RELATED QUESTIONS AND ENQUIRIES.

We know that having the helicopter fuelling system in operational condition is of great importance for many of the installations offshore, as helicopter transport, in many cases is the only method of transporting offshore personnel.

With this in mind we try to always keep the most critical parts in stock at all times, as we know that waiting in many cases is not an option. More than 30 years of experience has given us a unique possibility to see what kind of parts that are critical to keep in stock – and we now use this knowledge to benefit you as the customer.

Main spare part categories:

- Test/sampling equipment
- Filter elements
- Helideck equipment
- Tank parts
- Dispenser unit parts
- Pump unit parts
- Recycle unit parts

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Production Facilities

THE IMENCO WORKSHOP IS LOCATED AT GRINDE, 15KM OUTSIDE THE HEAD QUARTERS IN HAUGESUND, NORWAY.

Imenco's production facility is a modern workshop with a complete production line for Aviation Fuel Systems, fully covered by crane. The facility includes a welding workshop for SS316L, CuNi, 6MO and titanium, a machine department for cutting, drilling and milling and also a tension testing station for lifting equipment. It also includes a separate "clean" workshop for the construction of control room equipment and panels and test facilities for full scale testing for flow, leakage and pressure. In addition to this we have a DNV approved cleaning procedure for tubing and piping. The Imenco workshop employ highly trained engineers and production personnel, dedicated to make the best Aviation Fuel Systems available.

We always perform a full scale test, in our separate test department, before a system is delivered to our customers. The production facilities are certified to comply with 5S Standard.

- Office area: 500m²
- Production area: 2,100m²
- Outdoor area: 4,000m²

Our Technicians hold all necessary qualifications for welding, instrument piping, flange courses, pressure testing and ATEX installation.

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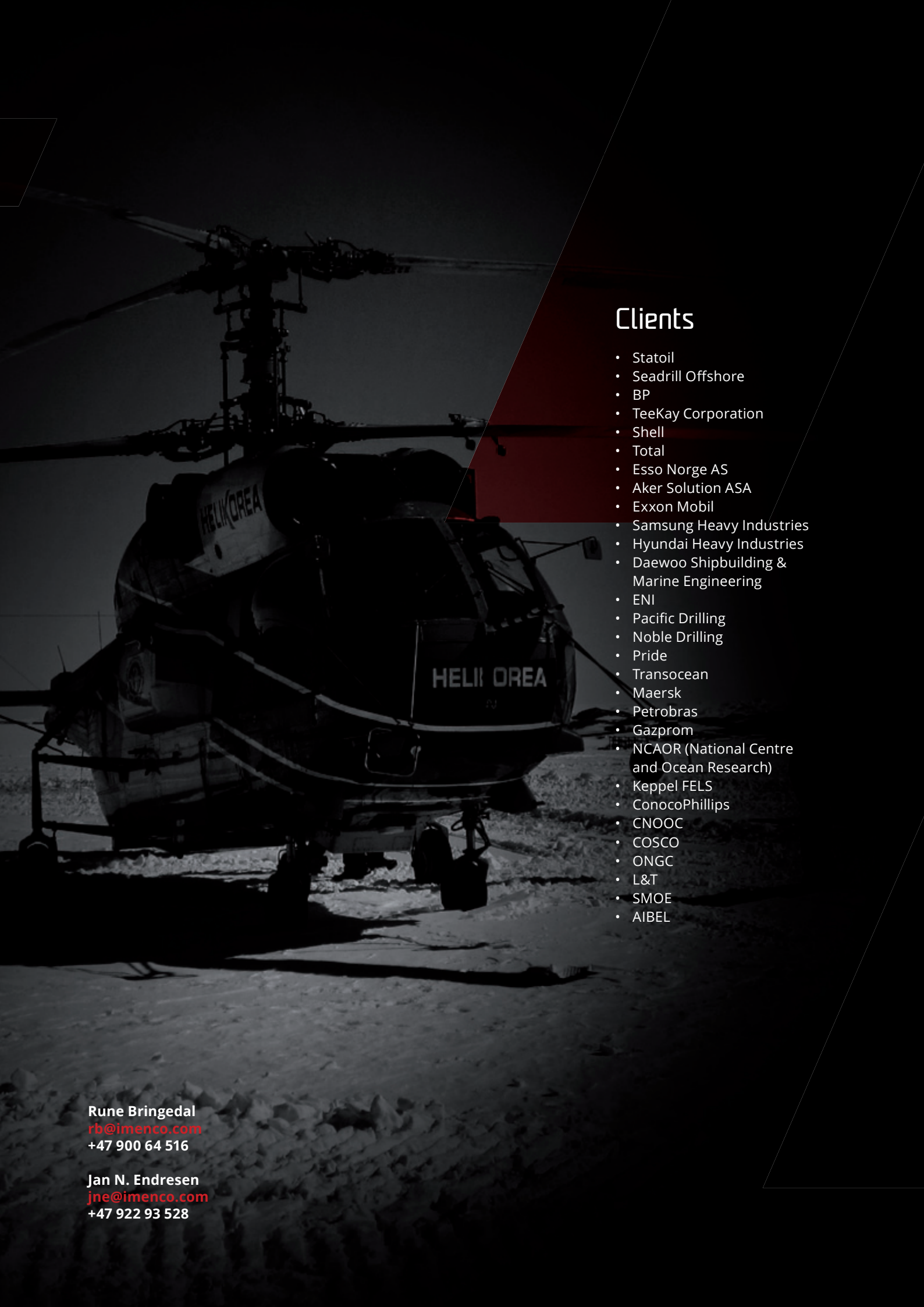
Range of Products

IN ADDITION TO PRODUCING HELICOPTER REFUELLING SYSTEMS, WE DESIGN AND PRODUCE A WIDE RANGE OF AVIATION FUEL PACKAGES.

Here are some examples:

- An automated fuelling system, for one of the worlds most advanced missiles, delivered to Kongsberg Defence and Aerospace (KDA).
- A highly advanced fuelling station to a research station in Antarctica.
- A highly accurate and comprehensive Faudi system to test the water content in aviation fuels.
- In-depth experience in delivering fuel systems for sub-zero environments, such as our projects in Antarctica and the Shtokman field.



Clients

- Statoil
- Seadrill Offshore
- BP
- TeeKay Corporation
- Shell
- Total
- Esso Norge AS
- Aker Solution ASA
- Exxon Mobil
- Samsung Heavy Industries
- Hyundai Heavy Industries
- Daewoo Shipbuilding & Marine Engineering
- ENI
- Pacific Drilling
- Noble Drilling
- Pride
- Transocean
- Maersk
- Petrobras
- Gazprom
- NCAOR (National Centre and Ocean Research)
- Keppel FELS
- ConocoPhillips
- CNOOC
- COSCO
- ONGC
- L&T
- SMOE
- AIBEL

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BROCHURES FROM IMENCO

- AVIATION FUELLING SYSTEMS
- BLOCKS & SHEAVES
- RETROFIT ANODE SYSTEMS
- ROV LATCHES
- ROV LIFTING HOOKS & LOAD TRANSFER HOOKS
- ROV SHACKLES
- SEA LED LIGHTS
- SUBSEA CAMERAS, LIGHTS & LASERS
- SUBSEA GUIDING SYSTEMS

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