The Framo product range, offering and markets

Magne Sangolt
Alex Syed
Alfa Laval Group
What is Frank Mohn?

“A leading manufacturer of submerged pumping systems for the shipping and offshore industry.”
Attractiveness to Alfa Laval

Globalization  Energy  Environment  Improved living standard

To optimise the performance of our customers' processes. Time and time again.
Attractiveness to Alfa Laval
– Excellent fit

Alfa Laval further strengthens its offer in fluid handling!
Founded by Frank Mohn in 1938

1960s - first company applying hydraulic drive to marine pumps

1970s - entered the North Sea offshore market

Headquarters and 4 other facilities, in Bergen area, Norway. 1,200 employees

Sales support and service in Rotterdam, Houston, Singapore, Shanghai, Busan, Tokyo, Dubai, Rio de Janeiro and Mexico City

Acquired by Alfa Laval in 2014
Key areas

Marine pumping: 50%*
Offshore pumping: 23%*
Oil recovery: 6%*
Service: 21%*

*) Sales 2013
Marine
– Cargo pumping offering

Submerged cargo pumping systems

For:
Chemical tankers
Products tankers
Shuttle tankers
FPSOs
Marine pumping system

- Control system
- Hydraulic piping
- Cargo piping
- Deck mounted Cargo heater
- Hydraulic drive for deck machinery
- Hydraulic power unit
- Submerged Ballast pump
- Submerged Cargo pump
- Bow thruster motor

Value opportunity $1-4 M
Marine cargo pumping system
– Key features and customer benefits

* High vessel utilization
  – Load any type of cargo
  – Efficiently shift between different cargos
  – Spend less time on cargo operations
    >> More tonne miles
  – Efficient and flexible cargo handling

* Better for business and better for the environment

∑ Direct impact on the bottom-line
Marine
– Key growth drivers – industry and customer demand

Global trends…
∗ Global transportation demand
∗ Energy demand
∗ Plastics demand

…affecting shipping…
∗ Refineries closer to oil & gas source – less crude oil carriers, more refined product tankers
∗ Shale gas in North America – less imported crude oil and more exported refined products – product tankers
∗ Fossil fuel continues to be dominant energy source with liquids the largest part
∗ High demand for petrochemicals for plastics production especially in Asia – chemical tankers
Offshore – Pumping systems offering

For:
Fixed platforms
FPSO
FLNG
Offshore pumping systems offering
– Key benefits

- Water Injection
- Ballast water
- Cargo
- Sea water lift
- Fire water

Value opportunity $5 M and up
Offshore
– Key growth drivers – industry and customer demands

- Increased focus on uptime and reliability
- Increased focus on EOR (enhanced oil recovery)
- Oil/Gas demand
A wider offshore offering

- Fresh water generator systems
- Waste heat recovery unit
- Decanter centrifuge
- Disk stack centrifuge separation system
- Plate heat exchanger
- Compabloc plate heat exchanger
- Fresh water generator systems
- Fuel oil cleaning system
- Large boiler module
- Mud mixing system
- Water Injection pump system
- Cargo pumping system
- Sea Water Lift pumping system
- Fire Water pumping system
- Ballast water treatment system
- Exhaust gas cleaning system
- Oily water treatment system
- Combustion unit
- Waste heat recovery unit
- Boiler module

Pro forma exposure 2013 EUR 365M

www.alfalaval.com
Environment
– Oil recovery systems

Emergency offloading

The Transrec system

Remote offloading
A wider environmental offering

- Oil recovery
- Waste recovery/treatment
- Waste heat recovery
- Water treatment
- Exhaust gas cleaning
- Dust recovery

www.alfalaval.com
Service
– Customer support 24/7

The offer includes
✦ Commissioning
✦ Training
✦ Service bulletins
✦ Service and repairs
✦ Spare parts
Service offering
– Customer focus
Wider service offering
– Even better service capabilities

280 marine field-service engineers
www.alfalaval.com
Together, an even stronger player
Same industries, same customers, same business

Ship building
Offshore
Environment & Energy, Marine
Diesel power
Service
Summary

* Framo offers unique pumping systems to the marine and offshore markets and has an exceptional service focus.
* We serve the same industries, the same customers and pumps are familiar to us.
* Combined, we have a broad and strong offering, particularly in the growing markets for product & chemical tankers and FPSOs.