Lamor Arctic skimmers separate oil from the drifting ice.
Photo: Lamor

Above: Mad Dog Spar platform in the Gulf of Mexico. Photo licensed under GFDL via Wikipedia.

Left: The platform is being transported from Finland to the Gulf of Mexico. Photo: Technip

FOTOLIA

ARCTECH

ARCTIC OFFSHORE

FINNISH EXPERTISE IN EXTREME CONDITIONS

TEXT: Marko Mannila / Finnish Marine Industries
GRAPHIC DESIGN: Pekka Sell Graphics
PHOTOS: Arctech, Fotolia

MERITEOLLISUUS
Finnish Marine Industries

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ARCTIC OFFSHORE: FINNISH EXPERTISE IN EXTREME CONDITIONS

Vitus Bering, a multifunctional icebreaking supply vessel, was delivered in 2012. Constructed by Arctech Helsinki Shipyard, Vitus Bering is capable of coping with the extreme conditions of the Far East, where temperatures can sink as low as 35 degrees below zero, the ice can be more than one metre thick, and where almost everything is frozen and snow-covered.

Vitus Bering supplies oil and gas fields in the Sakhalin area. The vessel can operate independently in 1.7 metre thick ice, and is equipped to carry various types of cargo and execute oil spill recovery, firefighting and ocean towing operations. It also has state-of-the-art rescue capabilities.

In addition to Arctic vessels and icebreakers, Finland has expertise in other offshore products, such as spar hulls. The coastal city of Pori is famous for building almost every spar-type kind of oil platform in use today. **Technip Offshore Finland is the world leader in spar-type oil platforms**. Technip has also constructed Perdido, the world's deepest floating platform, which drills for crude oil at a depth of about 2450 metres in the Gulf of Mexico.

Many of these platforms and icebreakers feature the most advanced maritime technology. This includes the **Azipod** and **Azimuth propulsion systems**, **marine engines using LNG gas** and **water mist fire-protection systems**.

Moreover, Finnish offshore companies construct sophisticated docks and terminals and advanced offshore structures, such as offshore wind turbines.

Finnish Marine Industries' countless success stories are all based on the same ingredients: continuous development of firms staffed by employees possessing the highest levels of expertise, use of state-of-the-art technology, and a global customer base. The exact recipe followed is tailored to the individual customer's specific requirements.

SOME ADVANCED ARCTIC VESSELS DELIVERED BY ARCTECH HELSINKI SHIPYARD:

NB 512–514: A series of three icebreaking stand-by vessels for Sovcomflot of Russia (2016–17)
NB 511: Icebreaking supply vessel for Sovcomflot (2016)
NB 510: The first LNG-powered icebreaker for the Finnish Transport Agency (2016)
NB 509: Icebreaker for the Russian Ministry of Transport (2015)
Baltika: The first oblique design icebreaking emergency and rescue vessel for the Russian Ministry of Transport (2014)

SOME SPAR OIL PLATFORMS CONSTRUCTED IN PORI, FINLAND

Heidelberg for Anadarko (2014)
Lucius for Anadarko (2013)
Perdido for Shell (2008)
Tahiti for Chevron (2007)
Constitution for Kerr-McGee (2005)
Mad Dog for BP (2004)

Finnish Marine Industries' members that participated in the design and construction of Vitus Bering:

ABB
Aker Arctic
APX-Metalli
Arctech Helsinki Shipyard
Caverion Industria
Comatec
Deltamarin
Elomatic
Evac
Foreship
GS-Hydro
Halton
Kemppi
Koja
Laivasähkötyö
Lamor
Lautex
Marioff
Metos
Meyer Turku
Mobimar
NAPA
Onninen
Paroc
Piikkio Works
Rolls-Royce
Saajos
SSAB
Technip Offshore
Trafotek
Wärtsilä

Other Finnish Marine Industries member companies which supply smart maritime technology:

Alfa Laval Aalborg
Allstars Engineering
ALMACO
Antti-Teollisuus
EIE Maskin
E.U. Adhoc Project
FSP Finnish Steel Painting
Furuno
Helkama Bica
Hentec
Joptek
Jukova
Kaefer
Kavika
KONE
Koneteknologiakeskus Turku
Kvaerner Finland
MacGregor Finland
Merima
Mesekon
Metalliasennus Huuhka
NIT
Oilon Industry
Orsap
Parmarine
Pemamek
Pocadel
Prizztech
Protacon
Rauma Marine Constructions
R&M Ship Technologies
SBA Interior
SeaKing
Shipbuilding Completion
Steerprop
S A Svendsen
Takoma Gears
Tebul
TEVO
Turku Repair Yard
Uki Workboat
We Tech Solutions

VITUS BERING TECHNICAL SPECIFICATIONS

Length: approx. 100 metres
Breadth: 22 metres
Speed: 15 knots
Speed at 1.5 m level ice: 3 knots
Installed power: 18 MW
Crew: 22 + 28
Gross tonnage: 7500
Cargo deck: 700 m²
Range: 40 days

Vitus Bering was delivered in 2012 to Sovcomflot of Russia.

IMAGE: ARCTECH

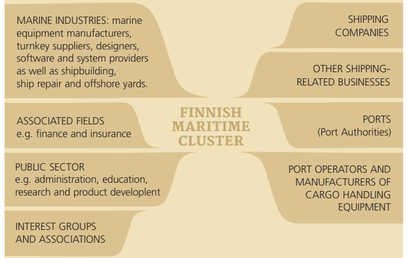
MERITEOLLISUUS
Finnish Marine Industries

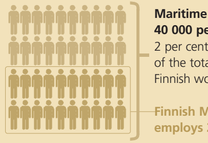
The Finnish Marine Industries consists of leading marine equipment manufacturers, turn-key suppliers, engineering firms, software and system providers as well as shipbuilding, ship repair and offshore yards. The association coordinates cooperation in industrial and economic policy among the companies in the sector and it has 73 member companies.

In addition, the association promotes sector networking in Finland, coordinates national research and product development and promotes the application of EU ship-building policies in Finland. The Finnish Marine Industries represents its members at the European Ships and Maritime Equipment Association – SEA Europe.

marineindustries.fi

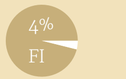
FACTS & FIGURES





Maritime cluster employs 40 000 persons, 2 per cent of the total Finnish workforce

Finnish Marine Industry employs 20 000 persons



Maritime cluster's annual turnover 14 billion euros, 4 per cent of the total Finnish output

Finnish Marine Industry's annual turnover 6 billion euros