

THE SEABORNE HELICOPTER



WAVE

CRAFT™



MANDAL

Umoe Mandal AS was founded in 1989 as a purpose-built shipyard, specializing in composite Fiber Reinforced Plastic hull building materials and advanced components for applications in marine, offshore, aquaculture and defense industries.

Our heritage of 30 years, designing and delivering revolutionary naval vessels to some of the most demanding navies in the world has set the groundwork for expanding into high-performance commercial craft.

WAVECRAFT™ series of new generation high-speed Crew Transfer Vessels is our latest contribution for the Renewables, Oil & Gas, Passenger and Defense sectors. WAVECRAFT™ vessels guarantee rapid transit time, excellent seakeeping and passenger comfort, superior fuel economy and a reduced environmental footprint.

Our head office and state-of-the-art facilities for design, engineering, production and service are located in Mandal, a town in the most southern part of Norway.

STRONG performance **LIGHT** materials



Gismerøya, Mandal, Norway.

SUSTAINABLE TECHNOLOGY

WAVECRAFT™ air-cushion catamarans employ surface-effect ship (SES) technology in combination with a robust, lightweight composite, slender catamaran hull. Vessels sit on a cushion of pressurized air, which partly lifts them out of the water. This reduces hull friction and enables very high speeds and superior fuel economy.

As the hull is less exposed to wave-induced movement and because the air-cushion functions as a large shock absorber, excellent seakeeping and passenger comfort are guaranteed.

All WAVECRAFT™ class vessels are built in composite sandwich materials, which deliver extremely robust, non-corrosive and non-toxic to the marine environment craft.

Furthermore, the low structural weight of these vessels presents several benefits, including: high speed, high payload fraction, reduced displacement and lower maintenance costs, lower power requirements, and up to 20-30 per cent lowered fuel consumption than aluminum vessels.

Structural design of WAVECRAFT™ vessels presents low wake wash characteristics, enabling safer, high-speed operations in shallow and confined areas, while benefiting atmospheric and marine environments.

Safe transfer and access, cost-reduction, improved efficiency of offshore logistics.

MOTION CONTROL SYSTEMS

All WAVECRAFT™ vessels are equipped with sophisticated, fully-automated motion control systems, including Ride Control System (RCS) and Boarding Control System (BCS™). The two modes are easily switched between on the operator interface touchscreen according to required operating mode, either Transit or Boarding.

RCS compensates for vessel's wave motion, offering comfortable transit and safe access to other vessels and installations offshore. When approaching a turbine, boarding control system (BCS™) is activated, significantly reducing heave and pitch motions. This enables personnel to safely and simply step onto the turbine.

Unique benefits offered by these systems, combined with SES and air-cushion vessel design result in excellent seakeeping, passenger comfort, substantially reduced seasickness and improved productivity.



WAVECRAFT™

Commander 27



COMMANDER 27

Passengers:	12-24
Boatlanding:	up to 2,5 m Hs
Max speed:	45 kn
Fuel consumption:	21 l/nm
Hull material:	Composite Sandwich



UNRIVALED SPEED – COMFORT - ACCESS

WAVECRAFT™ Commander series is a highly sophisticated class of composite vessels specifically designed for the medium to long-range transportation of personnel to offshore wind farms. Commander craft are designed to operate at almost twice the speed and wave height of other equivalent vessels on the market.

Commander series delivers greater access to offshore installations, while increasing productivity of O&M teams, and maximizing operational availability.

WAVECRAFT™

Sprinter 26

SPRINTER 26

Passengers:	12-24
Boatlanding:	2,0 m Hs/2,5 m Hs in swell
Max speed:	40 kn
Fuel consumption:	16,5 l/nm
Hull material:	Composite Sandwich



UNRIVALED SPEED – COMFORT – ACCESS

Sprinter is designed to maximize the availability of wind turbines for minimal costs through the rapid transportation of service personnel to offshore wind farms. Designed to perform fast, frequent crew and cargo transfers, Sprinter vessels are agile, robust and reliable.

Proven structural design and sophisticated motion control technologies of this competitive series offer the same benefits, as the other vessels in WAVECRAFT™ class, including reduced transit time, passenger comfort, safe boatlanding and apt seakeeping capabilities.

WAVECRAFT™

Voyager 32



VOYAGER 32

Passengers:	60-90
Boatlanding:	up to 2,5 m Hs
Max speed:	52 kn/58 kn
Fuel consumption:	23 l/nm/25 l/nm
Hull material:	Composite Sandwich/ Carbon Fiber Composite



UNRIVALED SPEED – COMFORT - FUEL EFFICIENCY

Designed to deliver extremely fast and smooth transfer of personnel for the offshore Oil & Gas industry, Voyager vessels offer a long-range, economical, commercially feasible alternative to helicopters. These composite craft make excellent use of operational windows and can operate at unrivalled speed in high sea states.

Voyager vessels are based on proven SES technology, designed as air-cushion catamarans, using an advanced ride control system. This offers excellent fuel economy, seakeeping, passenger comfort and minimal environmental footprint.

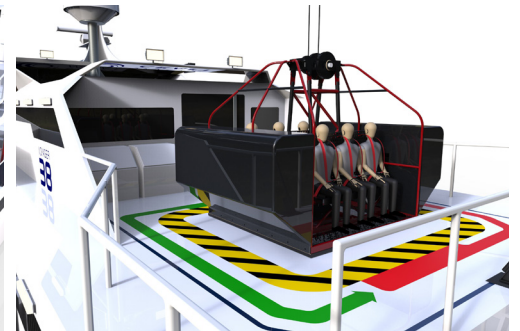
WAVECRAFT™

Voyager 38 T



VOYAGER 38 T

Passengers:	up to 108
Boatlanding:	up to 2,5 m Hs
Max speed:	55kn
Fuel consumption:	25l/nm
Hull material:	Carbon Fiber Composite



UNRIVALED SPEED – COMFORT - FUEL EFFICIENCY

WAVECRAFT™ Voyager 38 T is a high-performance CTV that challenges helicopter transfer, taking speed, safety and cost-efficiency to the next level. This vessel combines speed and agility of a top-class CTV with safe personnel transfer and excellent seakeeping capabilities.

Designed with a push-on boatlanding capability and outfitted with a motion compensated gangway and a personnel transfer basket (as option), this unique craft is optimized for specific requirements of the Oil & Gas industry.

WAVECRAFT™

VOYAGER 38 X



VOYAGER 38 X

Passengers:	100-150
Max speed:	up to 55 kn
Fuel consumption:	30 l/nm
Hull material:	Carbon Fiber Composite



UNRIVALED SPEED – COMFORT - FUEL EFFICIENCY

Voyager 38 X implements intelligent design and state-of-the-art technology to offer new standard for offshore crew transfer, directly competing with helicopters on levels of safety, comfort, fuel efficiency and overall reduced cost of offshore logistics. The vessel can be delivered with a gangway and a SeaSpyder personnel transfer system.

Voyager 38 X is compliant with USCG and ABS A1 HSC Crew boat, "Circle E" + AMS + DPS-2 classifications. Applying the latest in high-speed diesel engine and SCR technologies, Voyager 38 X is compliant with USCG EPA TIER 4 requirements.

WAVECRAFT™

Commuter 32

COMMUTER 32

Passengers:	200
Max speed:	40 kn
Fuel consumption:	21 l/nm
Hull material:	Carbon Fiber Composite



UNRIVALED SPEED – COMFORT - SUSTAINABILITY

WAVECRAFT™ Commuter 32 fast ferry series is engineered for reliable and efficient logistics, designed for an exclusive passenger experience. Rapid transit time, exceptional comfort, safety and excellent environmental performance are the essence of Commuter 32 series. Vessel's efficient layout is designed to minimize noise ingress to the main cabin and offers comfortable and comprehensive amenities.

These high-speed ferry's compact main dimensions, efficient maneuvering systems and low wake wash capability enable agile navigation in small ports and congested harbors, as well as, in open seas.

WAVECRAFT™

Defender MCMV Drone (CONCEPT)



UNRIVALED SPEED – STEALTH – SEAKEEPING

Speed, stealth and reliability are crucial elements for modern defense craft. These high-performance vessels would offer flexibility to carry out sophisticated operations, while providing a platform for safe and rapid deployment.

Vessel's design guarantee high transit speed, excellent seakeeping, stability in heavy seas, and deliver excellent fuel-economy and maneuverability.

Defender SOI (Special Operations Interceptor) is extremely sophisticated, fast and flexible. Designed for high performance in a variety of operations and outfitted with integrated stealth technologies, it will provide vital high-speed insertion, extraction and mission support.

MCMV Drone will be optimized for a variety of rapid, naval missions that would lower risk and increase efficiency for a large number of unmanned operations.

WAVECRAFT™

Defender SOI



SKJOLD CLASS CORVETTE

Speed: 60 kn
Crew: 15
Length o.a: 47 m
Beam: 13.5 m
Displacement: 270 t
Draught: 0,9 m on cushion/2,3 m off cushion



The fastest combat ship in the world.

OKSØY AND ALTA CLASS MCMV

Speed: over 20 kn
Crew: 20-50
Length o.a: 55,2 m
Beam: 13.5 m
Displacement: 390 t
Draught: : 0,9 m on cushion/2,2 m off cushion



Revolutionary seaborne shield of defense.

HONORED HERITAGE

For over two decades, and in close cooperation with most formidable customers and partners including Royal Norwegian Navy, US Navy, international academic institutions and research centers, we have designed, built and delivered truly groundbreaking naval vessels that have proven their powerful capabilities in national and international assignments.

Proven surface-effect ship (SES) and air-cushion catamaran design of these vessels, combined with intelligent stealth capabilities and radar-absorbing materials, is what sets them apart in a class of their own still today.

LIFECYCLE SUPPORT

We understand the importance of operational availability and employ our specialist skills to ensure the lifetime performance, reliability, safety and cost-efficiency of our vessels. To meet all of your needs and to offer the best aftercare for these world-class craft we offer a range of comprehensive service agreement packages, specifically developed to support the repair, maintenance and upgrade of composite vessels.

We provide our services on site of your operations, at ports or at our purpose-built yard facilities, and offer integrated logistics support with 24/7 online maintenance system updates.

MEETING THE HIGHEST STANDARDS

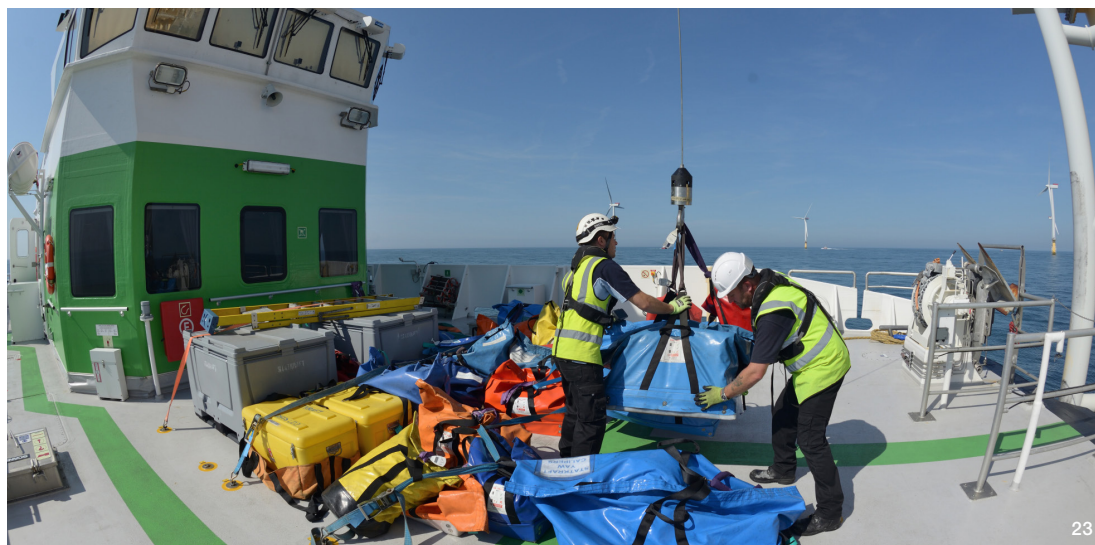
With almost 30 years of experience, we are just as committed today to continuously deliver our clients products and services of exceptional quality, offer our colleagues a safe and gratifying workplace, and to protect the environment that nourishes us.

Umoe Mandal AS is certified according to NS-EN ISO 9001:2015.



OUR SERVICE PORTFOLIO INCLUDES:

- Planning and scheduling
- Periodic and preventive maintenance
- Repair of structure, sub-systems and equipment
- Modification, mid-life updates and retrofits
- Overhaul and planned maintenance of complete vessels
- Configuration management and control
- Integrated logistics support with 24/7 online maintenance system updates
- Training for crew
- Warranty support
- Spare parts



Umoe Mandal AS

Gismerøyveien 205

N-4515 Mandal, Norway

Tel. +47 38 27 92 00

sales@um.no

www.wavecraft.no

www.um.no