



Stan Patrol Series

PATROL VESSELS TO MEET EVERY NEED

DAMEN

DAMEN

Your partner in patrol capability

The success of the Damen Shipyards Group is built on the satisfaction of its clients. Exceeding your expectations is our top priority.

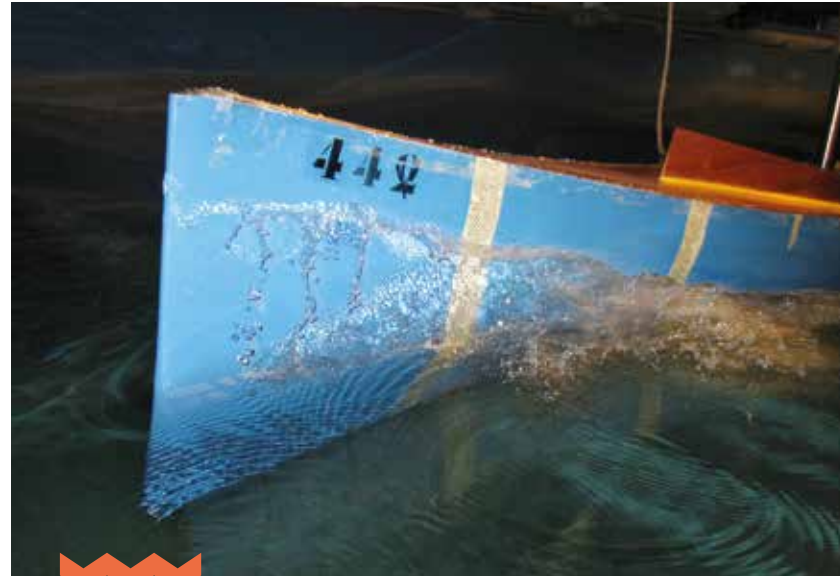
Our philosophy of standardised shipbuilding helps us to reach this goal, via efficient production. However, in order to meet individual requirements, our standardised platforms are designed to be tailor made to exactly meet clients' requirements. You can count on our experience in the delivery of naval vessels, OPVs, patrol vessels and security vessels. In addition to this,

we also apply our knowledge from across the maritime industries to develop the ultimate patrol vessels.

Following the vessel's delivery, Damen continues to support you via our Service Department. We can provide training for your crew, helping to familiarise them with the vessel, and maintain your vessel in optimal condition, including spare parts delivery.







Superior seakeeping

The Sea Axe hull shape guarantees the best seakeeping performance for high speed vessels. This hull shape is based on the result of five years of research by Delft University of Technology, the US Coast Guard, the Royal Netherlands Navy, the Maritime Research Institute Netherlands (MARIN) and Damen. The result is a relatively light, long and slender design

with a very fine entry. The bow is also free from flare and has an extremely deep-V. Together these elements contribute to substantially improved seakeeping characteristics.

Applied to more than 200 Damen vessels, the slender hull and axe shaped bow are now proven concepts for all kinds of operational areas.

Unrivalled operability



The superior seakeeping characteristics result in the highest possible level of operability. This design optimises the onboard working conditions and reduces crew fatigue.

Patrol vessels often operate in higher sea states and in these conditions the Sea Axe excels. Even at sustained maximum speed,

the slender Sea Axe hull shape will cut through the waves easily without detriment to the crew or the vessel.



Highly fuel efficient

The hull shape offers exceptionally low resistance, not only in calm waters, but also in high sea states, delivering fuel efficiency at all speeds. Where a conventional vessel will experience significant loss of speed in rough seas, the Sea Axe will effortlessly cut through the waves.

To capitalise on these benefits, Damen invests significantly in R&D, to ensure that its Patrol vessels have the most efficient propellers, engines and propulsion systems. The combination of excellent hull shape and optimised propulsion plant guarantees a low fuel consumption over the entire speed range.

Research and development



All Damen patrol vessels benefit from our unrivalled knowledge base gathered over years of ongoing research programmes within the Damen Group. Damen also works alongside world-renowned research institutes such as Delft University of Technology and MARIN as well as other reputable universities, institutes and companies.

Feedback from numerous customers operating all over the world ensures the continual optimisation of our vessel designs. Additionally, Damen

works closely with subcontractors and suppliers to maintain its product portfolio for the ever-changing demands of the industry.



Reliable and versatile platforms

Having patrolled the seas for decades, the Damen Stan Patrol designs are based on vast experience and customer feedback.

Recently, maritime security concerns have become even more considerable. Refugees looking for safety overseas together with increasing levels of piracy, terrorism and smuggling activities, are putting pressure on coast and border guards around the globe. This ever-changing world requires vessels with multi-mission versatility.

Reliability is key in ensuring mission success. Damen understands this, as can be seen by the international coverage of our supplier base and service organisation, distributed across five continents to ensure you of maximum vessel uptime.

- › Counter terrorism
- › Anti-drug operations
- › EEZ protection
- › Search and rescue
- › Anti-piracy
- › Oil spill recovery
- › Fishery inspection
- › Human trafficking prevention



Connecting the world

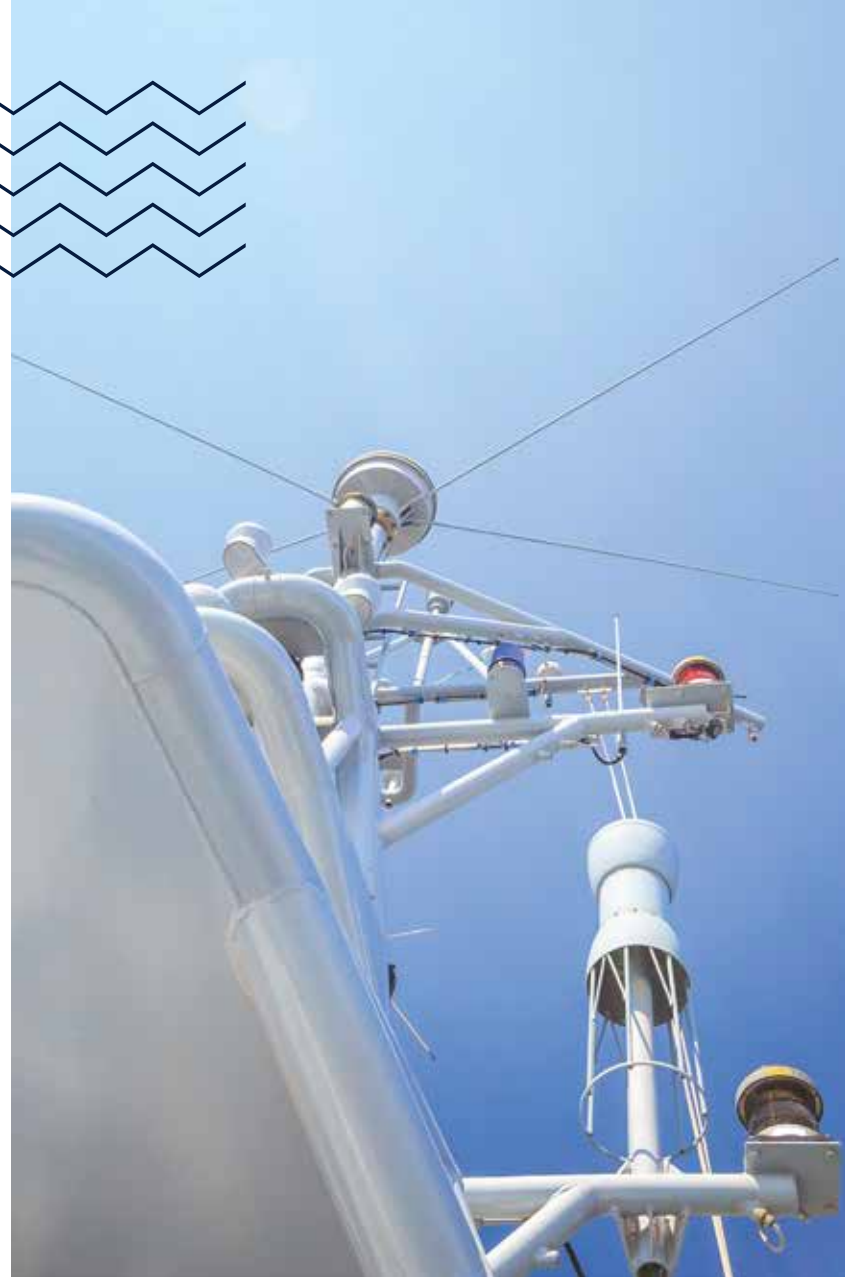
An integrated approach, well suited to regularly changing demands, can be found in the Damen Patrol Bridge design.

Fitted with the latest technologies and offering 360° situational awareness, the Damen Patrol Bridge is the operational heart of the vessel. Short lines of communication result from combined navigation and surveillance facilities within a single compartment. This efficient layout substantially reduces the demands on the crew.

The unique, extra large navigation displays provide excellent situational awareness, while dedicated positions are available for surveillance, planning, command and gun control.

The integration of external assets, such as RHIBs and UAVs, extend the operational coverage of the Command and Control team. Using reliable voice and data systems for real-time coordination with headquarters and other units further expands these capabilities.





QUALITY IS IN THE DETAIL

The best working environment for your crew

Damen Stan Patrol vessels, part of the standardised Damen product portfolio, exemplify the benefits of series production. Amongst these are speed of delivery, use of proven technology, ease of maintenance and a reduced cost of ownership.

Damen's standard vessels are subject to ongoing improvement in combination with a unique process of research and development.

The production of vessels in series means that research is conducted not as a one off event, but in an ongoing, continual fashion through generations of vessel production, ensuring

consistent improvement in quality, performance and safety.

In this vessel design, the Sea Axe hull shape is combined with an optimised lay-out, featuring well-located operational compartments and low noise levels, resulting in maximum crew comfort.



Damen patrol vessels range from 10 to 70 metres. As a result they offer a fitting solution for every operational profile, spanning riverine, littoral, coastal, inshore and offshore.

This versatility, combined with the benefits of standardised production, ensure that the Damen Stan Patrol series is ready for anything, anywhere, at any time.



Ready when you are



PATROL VESSEL



FCS PATROL





STAN PATROL SERIES

Unique flexible capabilities



Damen Stan Patrol vessels are designed to be flexible across a wide range of operational capabilities.

The aft deck can be configured to meet multiple mission requirements. Containers can be mounted to function as control space, decompression tanks, or simply as storage space.

Space can be allocated for the resources necessary to carry out humanitarian relief missions, or for up to

three fast boats for inspection, boarding and interception. UAVs can also be launched from the vessels, extending the surveillance range considerably.

The foredeck of each vessel also offers a large amount of space which can be configured to suit differing mission requirements.

						
STAN PATROL	3007	4207	5009	5509	6211	6711
Length	30.5 m	42.8 m	50.1 m	57.4 m	62.2 m	67.1 m
Beam	7.1 m	7.1 m	9.4 m	9.5 m	11.5 m	11.4 m
Hull	aluminium	aluminium	steel	steel	steel	steel
Superstructure	aluminium	aluminium	aluminium	aluminium	steel /aluminium	aluminium
Crew	up to 12 crew	up to 18 crew	up to 28 crew	up to 29 crew	up to 48 crew	up to 50 crew
Endurance	7 days 1,500 nm @ patrol speed	14 days 2,450 nm @ patrol speed	21 days 2,900 nm @ patrol speed	21 days 3,300 nm @ patrol speed	21 days 5,000 nm @ patrol speed	21 days 4,500 nm @ patrol speed
Speed	up to 30.0 kn 2 engines / FPP	up to 26.5 kn 2 engines / CPP	up to 29.5 kn 4 engines / FPP	up to 29.0 kn 2 engines / CPP	up to 30.0 kn 4 engines / FPP	up to 25.0 kn 4 engines / FPP
Equipment	1x 6.2 m RHIB in slipway stabilisers / bow thruster	1x 7.5 m RHIB in slipway stabilisers / bow thruster FiFi monitor / deck crane	1x 7.5 m RHIB in slipway stabilisers / bow thruster FiFi monitor / deck crane 2x Interceptor 1102 / davits	1x 7.5 m RHIB in slipway stabilisers / bow thruster FiFi monitor / deck crane 2x Interceptor 1102 / davits	1x 7.5 m RHIB in slipway stabilisers / bow thruster FiFi monitor / deck crane 2x Interceptor 1102 / davits	stabilisers / bow thruster FiFi monitor / deck crane 2x Interceptor 1102 davits / flight deck
Surveillance	navigation radars LWIR camera	navigation radars MWIR camera WAIS RDF	surveillance radar navigation radar MWIR camera / WAIS RDF / fire control	surveillance radar navigation radar MWIR camera / WAIS RDF / fire control	(air)surveillance radar navigation radar / WAIS fire control / CMS electronic surveillance	(air)surveillance radar navigation radar / WAIS fire control / CMS electronic surveillance
Armament	20 mm RWS 2x HMG/LMG WAIS RDF	20 mm - 30 mm gun 2x RWS 12.7 mm 4x HMG/LMG	20 mm - 40 mm gun 2x RWS 12.7 mm 4x HMG/LMG	20 mm - 40 mm gun 2x RWS 12.7 mm 4x HMG/LMG	forward gun up to 76 mm 2x RWS 12.7 mm 4x HMG/LMG	forward gun up to 76 mm side guns up to 30 mm missile launcher decoy launcher







Compact class



The Compact Class of the Damen Stan Patrol series has unique features which make the vessels the ideal asset for inshore and littoral operations.

The vessels are designed for all weather, high speed activities, employing the Sea Axe bow to reduce ship motions and ensure that the vessels' speed range can be achieved both comfortably and safely in all conditions. The designs also incorporate a wheelhouse with 360° visibility to ensure that fast operations are also safe operations.

The Compact Class is a modular design and can therefore easily adapted to satisfy special requirements, such as

single point lifting, troop transport, larger work decks and diving capabilities.

The Compact Class Stan Patrol Vessels are built in composite materials. By using the latest technology and high grade materials, this construction is superior to aluminium or steel. For the same strength and impact resistance, less weight is needed. This results in higher speeds and better economy. Also the chemical resistance of composites and its ease of repair makes it a first-class construction material.



STAN PATROL	1605 FRP	1905	2205 FRP
Length	15.7 m	19.2 m	22.7 m
Beam	4.8 m	4.8 m	6.1 m
Hull	FRP	aluminium	FRP
Superstructure	FRP	FRP	FRP
Crew	up to 2 crew / up to 6 patrol personnel	up to 2 crew / up to 6 patrol personnel	up to 8 crew
Endurance	2 days / 250 nm @ patrol speed	3 days / 400 nm @ patrol speed	4 days / 900 nm @ patrol speed
Speed	up to 33.0 kn / 2 engines / waterjets	up to 30.0 kn / 2 engines / waterjets	up to 30.0 kn / 2 engines / FPP
Equipment	air conditioning	air conditioning	air conditioning / 1x 4 m RHIB in slipway
Surveillance	navigation radar / LWIR camera / AIS	navigation radar / LWIR camera / AIS	navigation radar / LWIR camera / AIS
Armament	2x HMG/LMG	2x HMG/LMG	2x HMG/LMG







INTERCEPTOR SERIES

For when speed is of the essence



The ultimate interceptor. Combines ultra-high speed with unsurpassed seakeeping, high crew comfort and extreme maneuverability to enable the crew to execute their missions.

All Damen interceptors are a specialised type of craft, designed for ultra-high speed interception and insertion missions, while being capable and effective in a medium speed patrolling role. With a robust design and reliable equipment, Damen ensures that the boats can fulfill their missions successfully and cost-effectively. All interceptors can be fitted

with a secure communication suite to exchange messages and data with other units, amplifying mission effectiveness. When carried as support craft on a Stan Patrol vessel, the interceptors act as the forward deployment tool for high speed interception, boarding, and shallow water patrolling.

				
INTERCEPTOR	1102	1503 OPEN	1503 CLOSED	3007

Length	11.0 m	14.58 m	14.5 m	32.7 m
Beam	2.5 m	3.5 m	3.5 m	7.1 m
Structure	FRP	FRP	FRP	aluminium
Crew	2 crew / 4 embarked forces	2 crew / 6 embarked forces	2 crew / 6 embarked forces	up to 8 crew / 4 embarked forces
Endurance	1 day / 200 nm @ top speed	1 day / 200 nm @ top speed	1 day / 200 nm @ top speed	1 day / 200 nm @ top speed
Speed	55+ kn	up to 55.0 kn	up to 53.0 kn	up to 45.0 kn
Equipment	shock-absorbing seats single-point lifting hook	shock-absorbing seats	shock-absorbing seats air conditioning	air conditioning 4.2 m RHIB in slipway
Surveillance	navigation radar / LWIR camera / AIS	navigation radar / LWIR camera / AIS	navigation radar / LWIR camera / AIS	navigation radar / LWIR camera / AIS
Armament	1x HMG/LMG	1x HMG/LMG	1x HMG/LMG	forward gun up to 30 mm 2x HMG/LMG







FCS Patrol



Originally designed for the offshore industries, the **Damen Fast Crew Supply** vessels offer exceptional performance, cost-efficiency, flexibility, comfort and safety at sea.

The large aft deck of the design ensures true multi-mission capability. In combination with standardised, modular options, the vessels can be easily and

quickly adapted for a range of activities including crew transportation, special operations support, combined patrol and disaster relief.



FCS	3307 PATROL	4008 PATROL	4208 PATROL	5009 PATROL
Length	34.2 m	41.2 m	43.2 m	53.2 m
Beam	7.3 m	8.7 m	8.4 m	10.1 m
Hull	aluminium	steel	aluminium	steel
Superstructure	aluminium	aluminium	aluminium	aluminium
Crew	up to 6 crew / up to 14 patrol personnel	up to 6 crew / up to 16 patrol personnel	up to 12 crew / up to 20 patrol personnel	up to 8 crew / up to 16 patrol personnel
Endurance	14 days / 3,000 nm @ patrol speed	21 days / 3,000 nm @ patrol speed	21 days / 7,000 nm @ patrol speed	21 days / 7,000 nm @ patrol speed
Speed	up to 30.0 kn / 3 engines / FPP	up to 30.0 kn / 4 engines / FPP	up to 30.0 kn / 3 engines / FPP	up to 27.0 kn / 4 engines / FPP
Equipment	75 m² cargo deck for e.g. 6.5 m RHIB containers / pallets / crane	140 m² cargo deck for e.g. 7.5 m RHIB containers / pallets / crane / FiFi 1	115 m² cargo deck for e.g. RHIB containers / pallets / crane / FiFi 1/2	240 m² cargo deck for e.g. Interceptors 1102 containers / pallets / crane / FiFi 1
Surveillance	navigation radar / LWIR camera / W-AIS	navigation radar / LWIR camera / W-AIS	navigation radar / LWIR camera / W-AIS	navigation radar / LWIR camera / W-AIS
Armament	20 mm gun 2x HMG/LMG	20 mm gun 2x HMG/LMG	20 mm gun 2x HMG/LMG	20 mm gun 2x HMG/LMG





Damen can assist customers with building Damen vessels locally via Damen Technical Cooperation (DTC).

This highly flexible option results in a valuable transfer of technology and enables owners to enjoy Damen quality combined with the convenience of local production.

Since DTC was established, Damen has built over 1,000 vessels locally in over 70 countries. Damen can deliver packages ranging from simple licensing to vessel design, full materials supply and, if necessary, turnkey solutions, all tailored to each client's requirements.

DAMEN TECHNICAL COOPERATION

**Think global,
act local**



Damen Services

WE CARE

Damen Services is the one-stop-shop for your maritime needs. We offer everything to get you going, keep going, and stay ahead. We support you throughout the entire lifecycle of your assets.



» Integrated logistics support
Integrated Logistics Support (ILS) is increasingly applied in the commercial and coastguard sectors today. If requested, Damen can supply a customised ILS program with our newly built products.



» Getting started
Damen Services is able to tailor its service packages to meet specific requirements. In this way we ensure our clients can begin their operations as soon as we deliver their vessel on location.



» Keeping you going
Downtime is becoming increasingly expensive. Damen Services' portfolio enables reduction of downtime, either upfront via taking over the entire maintenance strategy or via quick intervention if a malfunction occurs.



» Long-term service agreements
Due to the large number and complexity of different systems on board a vessel, maintenance can be a challenging process. Damen Services is your partner in managing your assets and keeping them in optimal condition.

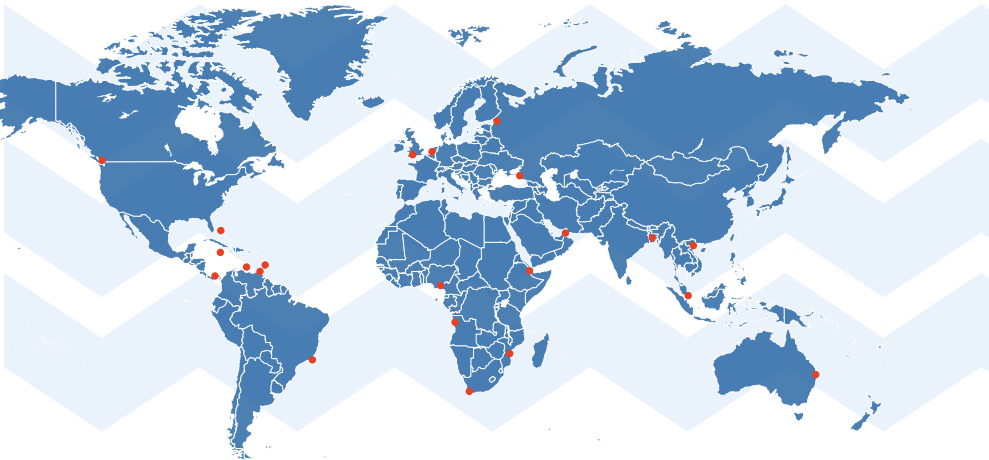


» Warranty support
Customer satisfaction is of utmost importance to us. Customers can reach out to a dedicated service team 24 hours a day, seven days a week. As well as having access to Damen via our mobile app, customers are visited by a Damen technician, whether or not there is an issue.

» Innovation & development
We respond to the rapidly changing world by continuously developing our services. This includes an expanding focus on digitalisation and sustainability. Examples include remote monitoring, a personal webportal for maintenance management, 3D parts printing and intelligent asset management.



» Worldwide service hubs
To fulfill our customers' need for short reaction times and understanding of local languages and cultures, Damen Services operates a worldwide network of Service Hubs. These Service Hubs are tailored to meet regional demands and are able to supply all necessary services from our portfolio.



GETTING YOU GOING

KEEPING YOU GOING



- Reliability, availability and maintainability analysis
- Reliability centered maintenance analysis
- Logistic support analysis

- Warranty support
- My Damen
- Commissioning

- Ship delivery
- Initial spare parts package
- Vessel operating manual
- Training
- Maintenance management solutions
- Remote monitoring

- Allround services
- Fleet support:
 - Parts, maintenance and repair
- Consultancy
- Conversion
- Refit



- Design & Licence**
- Basic and/or detailed designs provided
 - License/royalty for multiple series
 - Proven design



- Material packages**
- Renowned suppliers
 - Materials in stock
 - Advanced logistics



- Building assistance**
- Assistance on-site
 - Enhance shipyard skills
 - Transfer of knowledge/technology

HSEQ

Safety, quality and corporate social responsibility

» **Health & safety**

Damen is committed to continuously improving the health, safety and welfare of all people working under Damen Shipyard Group's sphere of influence. Damen is establishing a safety culture that includes the management of internal and external colleagues working together to jointly ensure the safety of all. Employees are encouraged to identify improvement and corrective opportunities and participate in maintaining a safe working environment. And, using our Supplier Code of Conduct, we advocate best practices at our building locations. At Damen we strive to create an incident-free workplace, everywhere we operate, at all times.

» **Environment**

Damen is committed to ensuring continuous improvement of our products and production methods with the objective of reducing our environmental impact. Being aware of the impact potential that our products might have on the environment,

Damen is duly focused on optimising its designs and constantly working on environmentally relevant product innovations. In addition, we have taken progressive actions to reduce the environmental impacts of our facilities and raise awareness among our employees in relation to their everyday activities.

» **Quality**

The quality of our products and services is of paramount importance to the Damen Shipyards Group. Our quality policy is focused on control of our activities as a result of which maximum quality, productivity, flexibility and cost reductions are achieved. Realising that our customers have to outperform in their operations, Damen is committed to continuously improving its products and services, to meet customers' needs. Damen therefore invests in product, process and organisational development and, together with all our employees, we are aiming to constantly improve our sustained performance.



MORE THAN 1000 PATROL VESSELS DELIVERED TO POLICE FORCES, COAST GUARDS AND NAVIES



DAMEN SHIPYARDS GROUP

A broad scope of vessels

Damen Shipyards Group operates 35 shipbuilding and repair yards employing 12,000 people worldwide. Damen has delivered more than 6,500 vessels in more than 100 countries and delivers some 175 vessels annually to customers worldwide. Based on its unique, standardised ship-design concept Damen is able to guarantee consistent quality.

Damen's focus on standardisation, modular construction and keeping vessels in stock leads to short delivery times, low 'total cost of ownership', high resale values and reliable performance. Furthermore, Damen vessels are based on thorough R&D and proven technology.

Damen offers a wide range of products, including tugs, workboats, naval and patrol vessels, high speed craft, cargo vessels, dredgers, vessels for the offshore industry, ferries, pontoons and superyachts.

For nearly all vessel types Damen offers a broad range of services including maintenance, spare parts delivery, training and the transfer of (shipbuilding) know-how. Damen also offers a variety of marine components

such as nozzles, rudders, winches, anchors, anchor chains and steel works.

Damen Shiprepair & Conversion (DSC) has a worldwide network of eighteen repair and conversion yards of which twelve are located in North West Europe. Facilities at the yards include more than 50 floating and covered drydocks, including the longest, 420 x 80 metres, and the widest, 405 x 90 metres, in Europe, as well as slopes, ship lifts and indoor halls. Projects range from the smallest simple repairs through Class' maintenance to complex refits and the complete conversion of large offshore structures. DSC completes around 1,300 repair and maintenance jobs annually, both at yards as well as in ports and during voyages.

Colophon

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