



DAM572

DAMEN SHIPYARDS GROUP

Industrieterrein Avelingen West 20
4202 MS Gorinchem

P.O. Box 1
4200 AA Gorinchem
The Netherlands

phone +31 (0)183 63 99 22
fax +31 (0)183 63 21 89

info@damen.com
www.damen.com

WWW.DAMEN.COM

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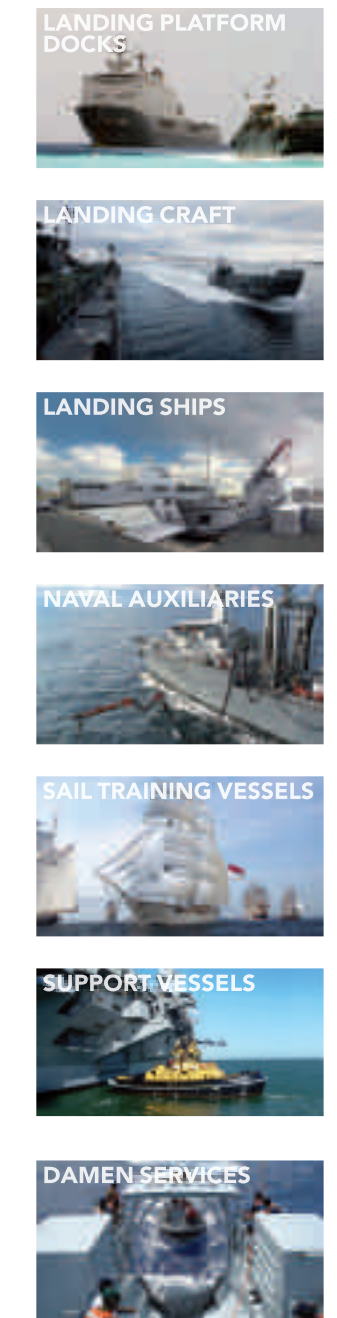
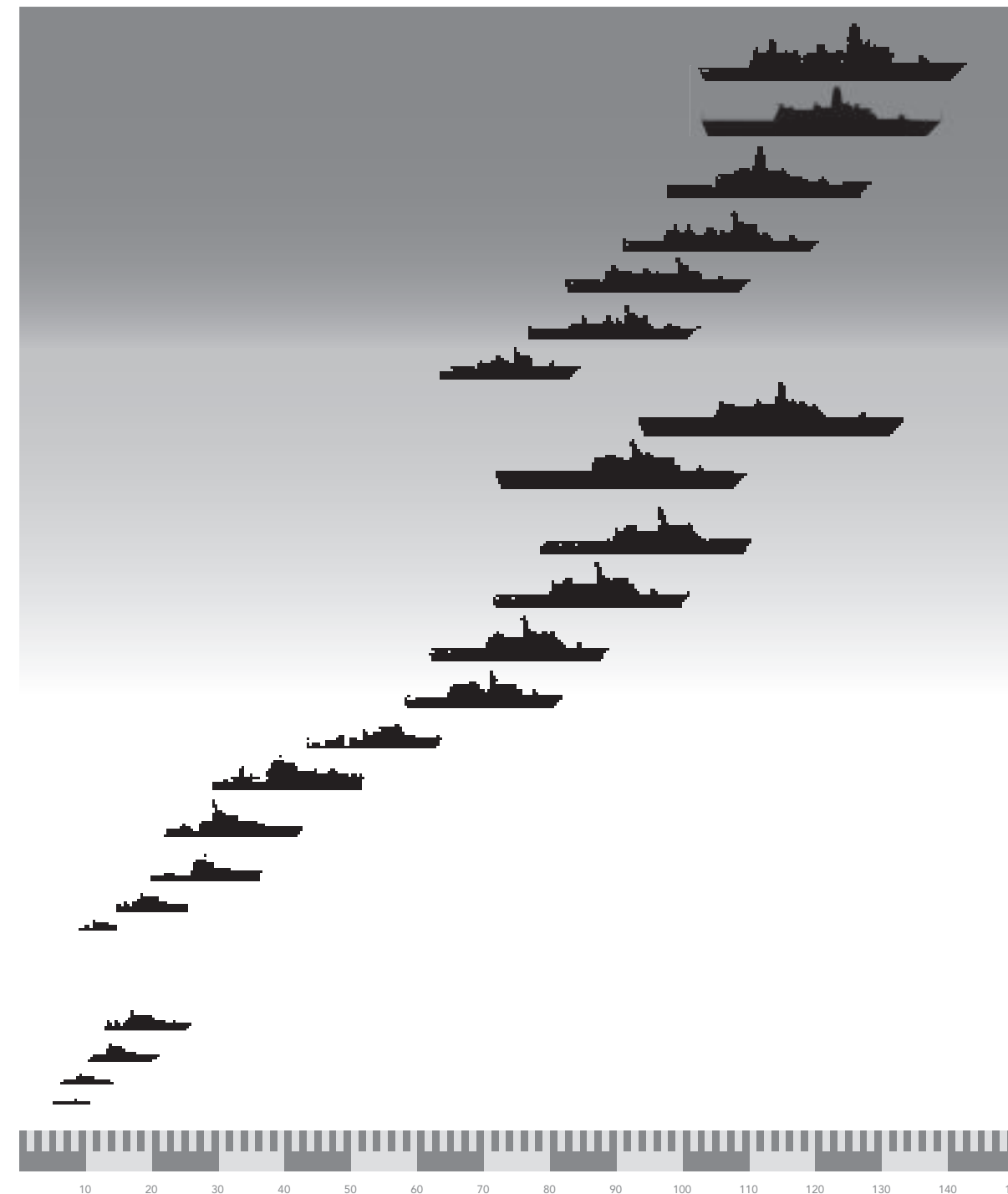
DEFENCE & SECURITY

DAMEN



DEFENCE & SECURITY

DAMEN



DAMEN SHIPYARDS GROUP PORTFOLIO

TOP ROW, LEFT TO RIGHT
 DAMEN STAN PATROL 2606
 AOR 'AMSTERDAM'
 DAMEN BUOY TENDER VESSEL 5811
 DAMEN STAN PATROL 2606
 DAMEN OFFSHORE PATROL VESSEL 6210
 L-FRIGATE 'HNLMs WITTE DE WIT'

SECOND ROW, LEFT TO RIGHT
 DAMEN OFFSHORE PATROL VESSEL 8313
 DAMEN HYDROGRAPHIC SURVEY VESSEL 6613
 DAMEN SEARCH AND RESCUE VESSEL 4100
 DAMEN RIB 2000
 DAMEN STAN PATROL 2005
 S-FRIGATE 'HMS KORTENAER'

THIRD ROW, LEFT TO RIGHT
 DAMEN TORPEDO RECOVERY VESSEL
 DAMEN STAN PATROL 1505
 DAMEN STAN PATROL 2600
 DAMEN STAN PATROL 3507
 M-FRIGATE 'HMS VAN SPEIJK'

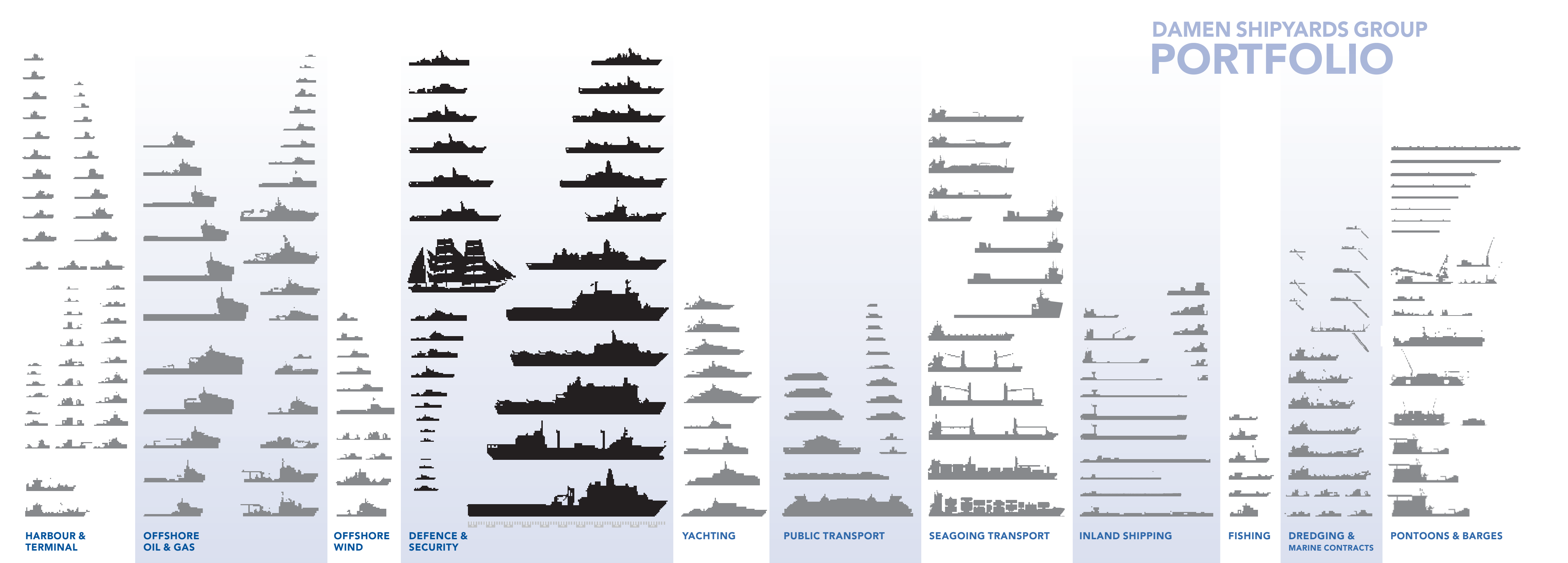
BOTTOM ROW, LEFT TO RIGHT
 DAMEN TRAINING VESSEL
 DAMEN STAN PATROL 2200
 DAMEN STAN TUG 1907
 DAMEN OFFSHORE PATROL VESSEL 6111
 DAMEN SAIL TRAINING VESSEL
 DAMEN MULTI PURPOSE VESSEL 8116

COLOPHON

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 If you have any comments on our brochures, please let us know: info@damen.com



HARBOUR & TERMINAL

OFFSHORE OIL & GAS

OFFSHORE WIND

DEFENCE & SECURITY

YACHTING

PUBLIC TRANSPORT

SEAGOING TRANSPORT

INLAND SHIPPING

FISHING

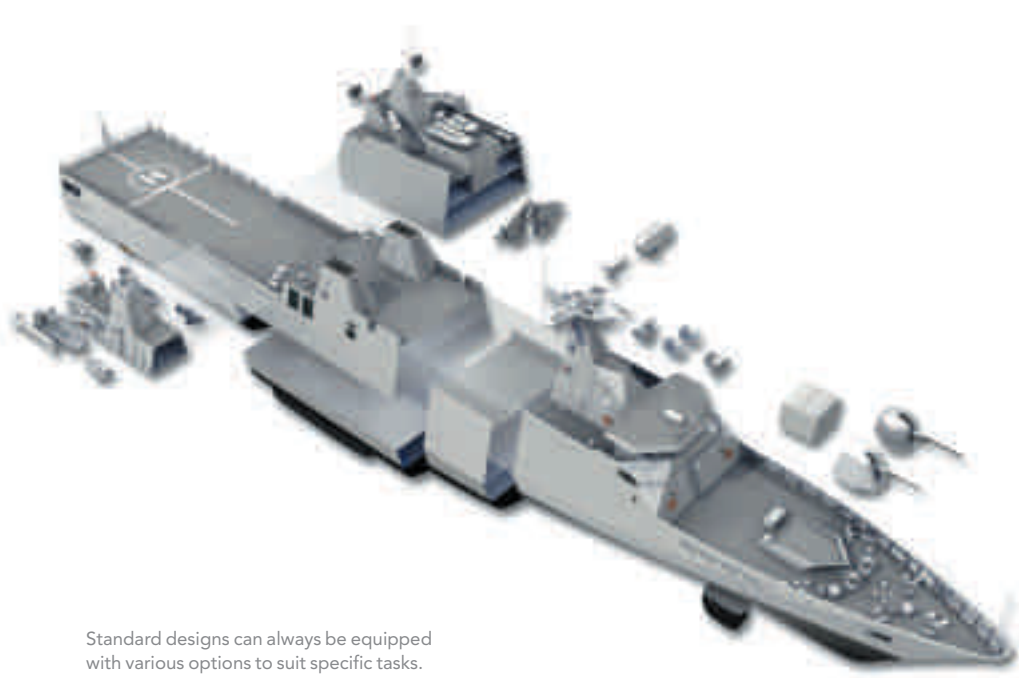
DREDGING & MARINE CONTRACTS

PONTOONS & BARGES

Uniquely in the shipbuilding world, Damen specialises in building naval and patrol vessels ranging from 7 m to more than 200 m.

Damen has a rich tradition of naval shipbuilding with our original navy roots stemming back 140 years. Damen Shipyards Group is known worldwide for its quality shipbuilding, both in the naval and commercial sector. Damen vessels are entirely fit for purpose, offering unrivalled seakeeping behaviour, speed and reliability.





Standard designs can always be equipped with various options to suit specific tasks.

STANDARDISATION KEY TO SUCCESS

Damen's focus on standardisation is undoubtedly one of our fundamental corporate values. In 1969, Jan Damen handed the reins over to his son Kommer Damen. The modular building concept was one of the first initiatives Kommer Damen introduced after listening carefully to client feedback.

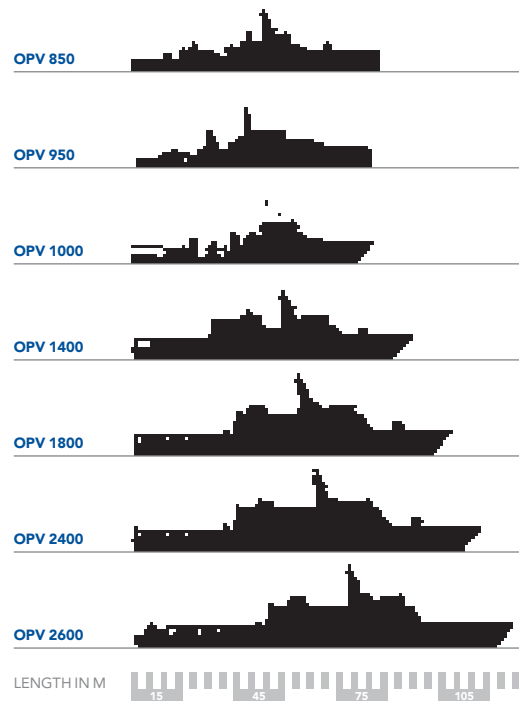
Four decades ago the standardisation concept was totally new in the shipbuilding industry and today it still differentiates Damen from its competitors.

In each of our niche markets – from tugboats to luxury yachts – Damen has developed a standard range.

However, although these vessels are based on a standard design, they can be equipped with a large range of options to meet specific customer requirements. Our standard designs can be tailor-made according to customer wishes or we can of course, start from scratch to design a unique vessel. All of these options are no problem with Damen's far-reaching capabilities.

ADVANTAGES OF STANDARDISATION

- Fast response to customer requests
- Competitive pricing
- Short delivery times due to stock hulls
- Reliability, proven and tested technology
- Continuous product development
- Interchangeability of ships, crew, spares
- Lower maintenance costs
- Guaranteed performance
- Benchmark for the industry



DAMEN OFFSHORE PATROL RANGE

For each type of vessel Damen has developed a full standard range to meet customer requirements.



STANDARD OR CUSTOM-MADE

Damen is your partner for both standard designs and for unique custom designs. We have decades of experience, a diverse portfolio of products and all the in-house expertise needed. All of this will ensure the best end result.



WIDE RANGE OF STANDARD HULLS IN STOCK



STANDARD HULLS FINISHED TO YOUR REQUIREMENTS

HULLS IN STOCK

PROVEN DESIGN, SHORT-TERM DELIVERY

Damen's standardisation policy allows us to reduce delivery times substantially. We build a wide variety of standard vessels on our own initiative and on our own account and keep them in stock.

All of our standard designs are worked out to the smallest detail. Therefore Damen can deliver fully finished vessels very quickly and efficiently.

The vessels are produced at our shipyards worldwide, close to our customers. This results in an efficient delivery process at the best price-quality ratio.

STANDARDISATION ENSURES SHORT DELIVERY TIMES

The delivery time of a Damen standardised vessel is considerably shorter than a conventionally built vessel due to years of refining the engineering, supply chain and hull fabrication processes.



DAMEN STANDARD



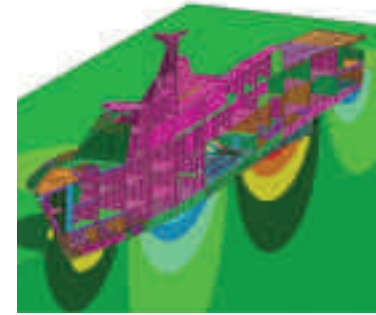
CLIENT REQUEST

CONVENTIONAL SHIPBUILDING

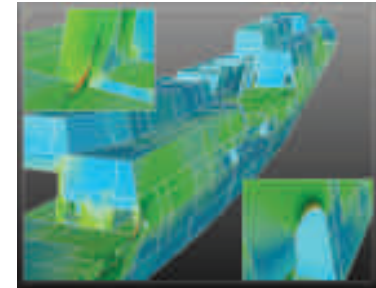




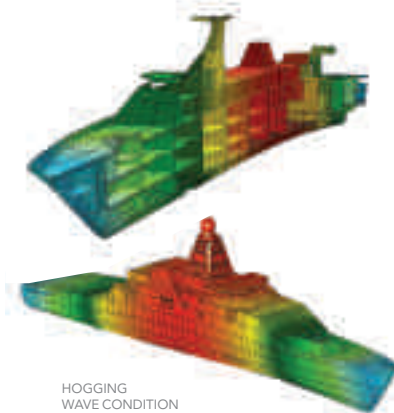
Damen's extensive R&D Department represents a powerful force, especially when combined with the Dutch maritime technology cluster. All Damen vessels benefit from thorough R&D from their initial design, throughout the vessel's entire lifetime. Our team is continuously improving our vessels, making them faster, quieter, more cost-efficient and more environmentally friendly. Many years of research have also led to some truly pioneering designs such as the Enlarged Ship Concept and the Sea Axe.



VIBRATION RESEARCH



"HOT SPOTS" STRESS LEVELS

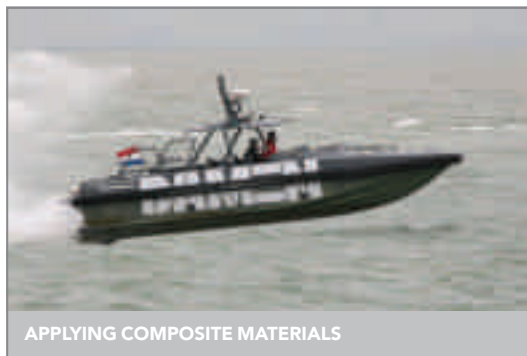


HOGGING WAVE CONDITION

FINITE ELEMENT METHOD

By using the Finite Element Method, the actual behaviour of the ship can be simulated. Undesired effects can be found and corrected.

DAMEN'S BACKBONE RESEARCH & DEVELOPMENT



APPLYING COMPOSITE MATERIALS

Damen has vast experience in the use of composites ranging from tough applications for the offshore industry to high tech Interceptors for navies, coastguards and police forces.



THE AXE BOW CONCEPT

SEA AXE

Since the eighties, Damen and Delft University of Technology have cooperated in a research programme aimed at improving the seakeeping characteristics of high speed vessels. This cooperation produced the "Enlarged Ship Concept" on which the highly successful Stan Patrol 4207 and 4708 are based. The development of the "Axe Bow Concept" followed, a hull shape with unparalleled seakeeping characteristics. Based on this concept, Damen has developed the "Sea Axe" Patrol Boats and Fast Crew Suppliers.



DUTCH MARITIME KNOWLEDGE

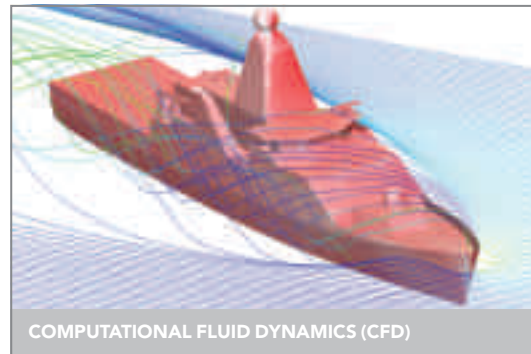
All Damen vessels benefit from knowledge gathered during ongoing research programmes within the Group. Damen works alongside world-renowned research institutes like Delft University of Technology, Maritime Research Institute Netherlands (MARIN) and the Netherlands Organisation of Applied Scientific Research (TNO), as well as other reputed universities and leading maritime companies.

Damen is proactive in developing sustainable and cost-effective vessels and services.

Damen's Research & Development Department is looking into sustainability issues, both in terms of manufacturing processes and in terms of product improvements and life cycle cost.



SUSTAINABILITY THROUGH THE ENTIRE LIFECYCLE



COMPUTATIONAL FLUID DYNAMICS (CFD)

A study has been carried out to evaluate the influence of different ship components on the airflow around the ship's superstructure. By means of CFD simulation and validation by wind tunnel experiments, working conditions have been determined at different wind speeds and sailing speeds combined with different wind angles and ship headings.

GLOBAL PRESENCE FOUNDED IN THE NETHERLANDS

- Damen yard / Joint venture
- Business cooperation
- ▼ Partner yard

THE NETHERLANDS

Damen Shipyards Gorinchem
 Damen Marine Services
 Damen Trading
 Damen Schelde Naval Shipbuilding
 Damen Schelde Gears
 Damen Schelde Marine Services Vlissingen
 Amels
 Damen Dredging Equipment
 Damen Marine Components
 Damen Shiprepair Rotterdam
 Damen Shiprepair Vlissingen
 Damen Shiprepair Van Brink Rotterdam
 Damen Anchor & Chain Factory
 Damen Shipyards Bergum
 Damen Shipyards Den Helder
 Damen Shipyards Hardinxveld
 Maaskant Shipyards Stellendam
 Shipdock Amsterdam
 Shipdock Harlingen
 Oranjerwerf Amsterdam

FRANCE

Damen Shiprepair Brest
 Damen Shiprepair Dunkerque

POLAND

Damen Shipyards Gdynia
 Damen Shipyards Kozle
 Damen Marine Components Gdansk

ROMANIA

Damen Shipyards Galati

SWEDEN

Damen Oskarshamsvarvet

TURKEY

Damen Shipyards Antalya

UNITED KINGDOM

Brixham Marine Services

BRAZIL

Wilson, Sons**

CUBA

Damex*

QATAR

Nakilat Damen Shipyards Qatar*

SOUTH AFRICA

Damen Shipyards Cape Town

U.A.E.

Albwardy Marine Engineering*
 Damen Shipyards Sharjah (FZE)*

CHINA

Damen Shipyards Changde
 Damen Yichang Shipyard*
 Damen Marine Components Suzhou
 Damen Trading Suzhou
 Afai Southern Shipyard**

INDONESIA

PT Dumas**
 PT Pal**
 PT Steadfast Marine**

SINGAPORE

Damen Shipyards Singapore
 Damen Schelde Marine Services Singapore

VIETNAM

Damen Song Cam Shipyard
 Song Cam Shipyard**
 Song Thu Shipyard**
 189 Shipyard**

* Joint venture ** Business cooperation

SIGMA FRIGATES & CORVETTES

Damen supplies a complete range of vessels in the Surface Combatants sector built according to the Ship Integrated Geometrical Modularity Approach (SIGMA). Although built according to this concept each vessel is entirely tailor-made to the client's operational requirements.

The SIGMA range is available in configurations including corvettes and multi-mission frigates.

CROSSOVER SERIES

In recent maritime operations navy ships were increasingly sent out on missions as single ships. Future ships need to be self-sustaining, self-reliant and capable of dealing with threats effectively. The Crossover Series have been developed as a new hybrid ship concept to address these combined trends. With the fighting power of a frigate, it has the endurance, versatility and flexibility of an amphibious ship.



SIGMA MULTI-MISSION FRIGATE 9813



SIGMA CORVETTE 9113



CROSSOVER

COMBATANTS





AIR DEFENCE AND COMMAND FRIGATE 'HNLMS ZEVEN PROVINCIËN'



SIGMA MULTI-MISSION FRIGATE 10513 'TARIK BEN ZIYAD'



SIGMA MULTI-MISSION FRIGATE 9813 'ALLAL BEN ABDELLAH'



SIGMA MULTI-MISSION FRIGATE 10513 'TARIK BEN ZIYAD'

The Royal Moroccan Navy ordered three Sigma Class multi-mission Frigates. The Navy is aiming to modernise the fleet and extend its patrol capacities. By adding one or two modules, these frigates are extended versions of the existing Sigma vessels.

SIGMA FRIGATES & CORVETTES

Damen offers a complete range in the Surface Combatants sector including multi-mission frigates and corvettes.

Combatants are built using standardised modules according to the Ship Integrated Geometrical Modularity Approach (SIGMA) concept.

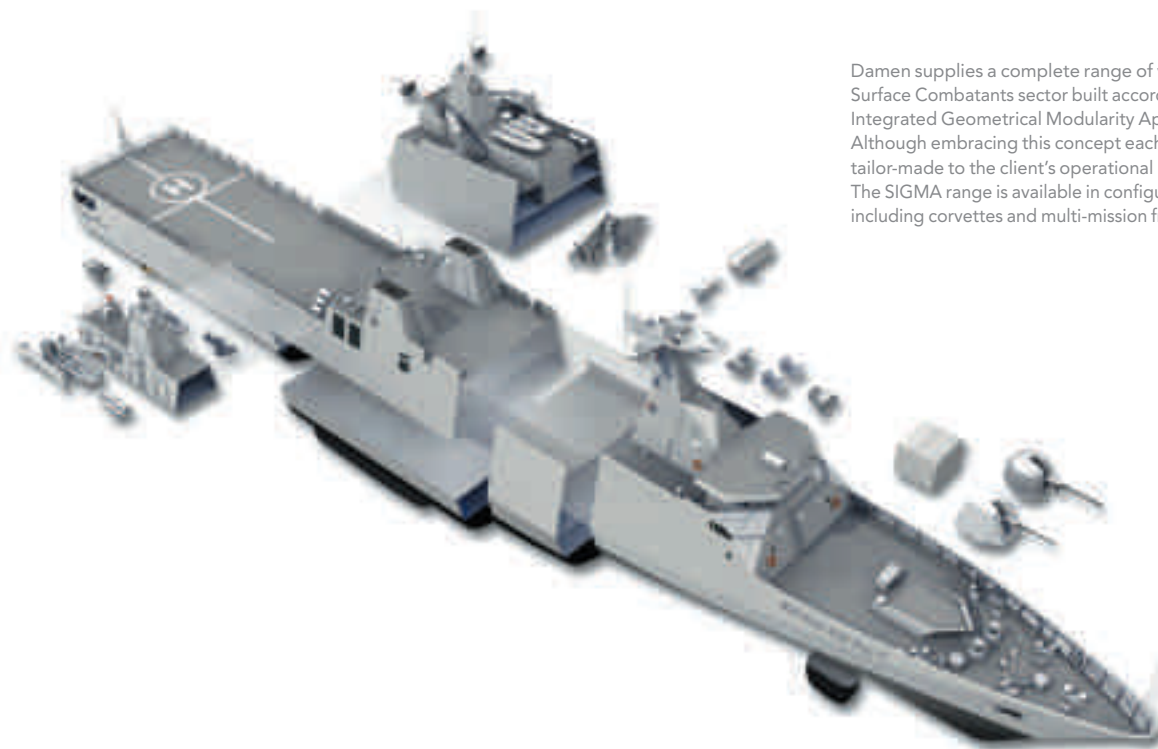
- Vessels built to suit customer's operational aims.
- Damen establishes exactly what the customer wants in terms of weapon systems, sensors and electronic warfare capabilities.
- Several length and breadth configurations available.
- Vessels perfectly adapted to modern tasks, such as combating piracy and smuggling.
- Anti-air, anti-surface and anti-submarine capabilities.
- Uniquely, Damen is not bound to specific weapon and sensor system suppliers, so can provide what the customer requires.
- Damen can build locally.
- Integrated Logistic Support.



AIR DEFENCE AND COMMAND FRIGATE 'HNLMS EVERTSEN', NAMED BY HER MAJESTY QUEEN MAXIMA



LAUNCH OF SM-2 MISSILE



Damen supplies a complete range of vessels in the Surface Combatants sector built according to the Ship Integrated Geometrical Modularity Approach (SIGMA). Although embracing this concept each vessel is entirely tailor-made to the client's operational requirements. The SIGMA range is available in configurations including corvettes and multi-mission frigates.

SIGMA FRIGATE 10514

DISPLACEMENT



2300

SIGMA FRIGATE 9813

DISPLACEMENT



2300

SIGMA CORVETTE 9113

DISPLACEMENT



2300

SIGMA CORVETTE 7613

DISPLACEMENT



1700

SIGMA CORVETTE 6610

DISPLACEMENT



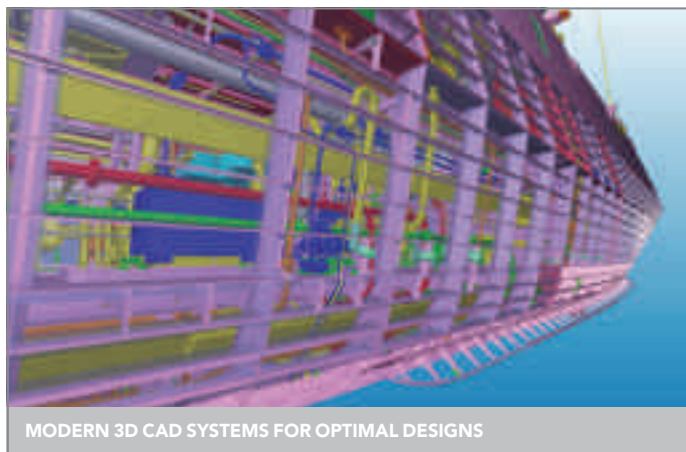
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SIGMA CORVETTE 5910

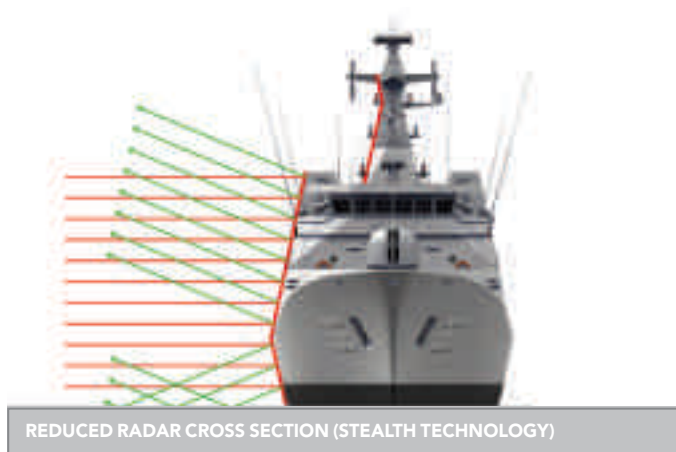
DISPLACEMENT



700



MODERN 3D CAD SYSTEMS FOR OPTIMAL DESIGNS



REDUCED RADAR CROSS SECTION (STEALTH TECHNOLOGY)



MODULAR CONSTRUCTION

SIGMA FRIGATES & CORVETTES

NAVAL FEATURES

- Naval intact and damaged stability standards
- Enclosed gas-tight citadel and NBC filter installation
- Shock resistance and protection of vital systems
- Redundancy in essential services
- Naval damage control zones
- Reduced signatures through RCS shaping, noise control, degaussing and IR reduction

PROVEN HULL FORMS ACROSS A WIDE RANGE OF MAIN DIMENSIONS

SECTION TYPE			NUMBER OF HULL SECTIONS								
BREADTH o.a. (m)			7	8	9	10	11	12	13	14	
LENGTH ON REFERENCE 2-DECK (M)			50.40	57.60	64.80	72.00	79.20	86.40	93.60	100.80	
Σ X-14	14	Sigma Type length o.a. (m) displacement (tonnes)						8414 83.51 1764	9114 90.17 1940	9814 97.91 2097	10514 105.11 2368
Σ X-13	13	Sigma Type length o.a. (m) displacement (tonnes)				7613 76.31 1408	8413 83.51 1563	9113 90.71 1701	9813 97.91 1939	10513 105.11 2175	
Σ X-12	12	Sigma Type length o.a. (m) displacement (tonnes)				7612 76.31 1218	8412 83.51 1345	9112 90.71 1476	9812 90.48 1660		
Σ X-11	11	Sigma Type length o.a. (m) displacement (tonnes)			6611 66.01 925	7311 73.21 1039	8011 80.41 1151	8811 87.61 1321			
Σ X-10	10	Sigma Type length o.a. (m) displacement (tonnes)		5910 58.81 707	6610 66.01 806	7310 73.21 907	8010 80.41 1054				
Σ X-9	9	Sigma Type length o.a. (m) displacement (tonnes)	5109 51.41 519	5909 58.81 600	6609 66.01 679	7309 73.21 802					





SIGMA CORVETTE 7513



SIGMA CORVETTE 8313

SIGMA CORVETTES

Damen offers a complete range in the Surface Combatants sector including corvettes.

Corvettes are the small class of combat ships built using standardised modules according to the SIGMA Concept. Our unique modular approach results in high availability, flexible combat systems and systematic flexibility. Although built according to this approach, the vessels are entirely tailor-made to meet the customers' requirements.

SIGMA FRIGATES & CORVETTES



SIGMA CORVETTE 9113 'KRI DIPONEGORO'



SIGMA CORVETTE 9113 'KRI SULTAN ISKANDAR MUDA'

CROSSOVER

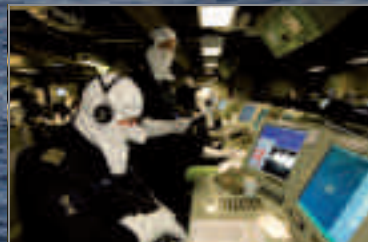
XO SERIES



HELICOPTER OPERATIONS



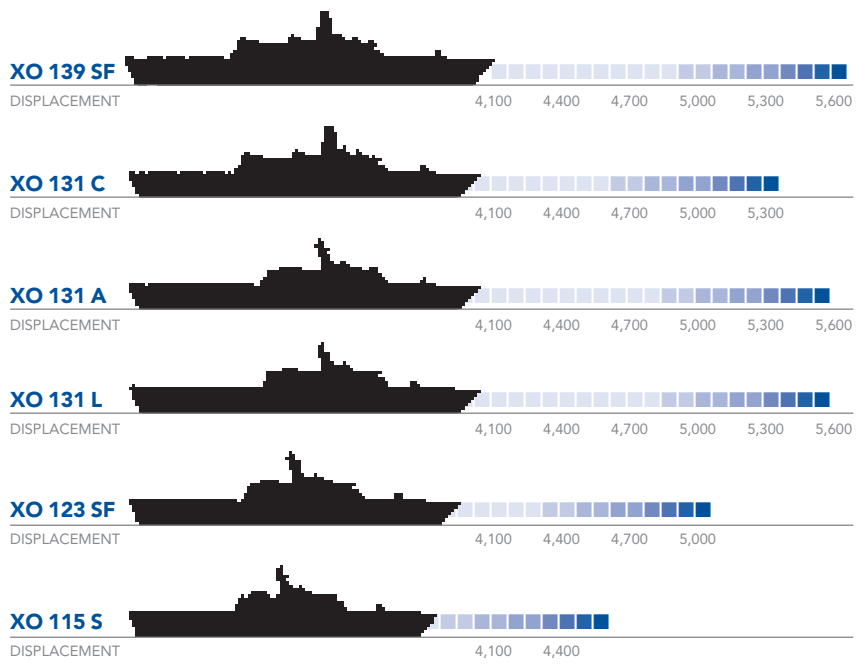
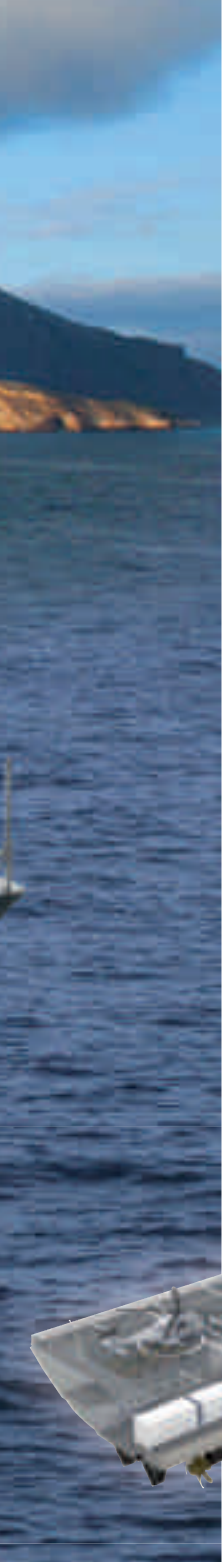
ANTI PIRACY



MARITIME WARFARE



UNMANNED VEHICLE DEPLOYMENT



In recent maritime operations navy ships were increasingly sent out on missions as single ships. Future ships need to be self-sustaining, self-reliant and capable of dealing with threats effectively.

The Damen CROSSOVER has been developed as a new hybrid ship concept to address these combined trends. With the fighting power of a frigate, it has the endurance, versatility and flexibility of an amphibious ship.

CROSSOVER

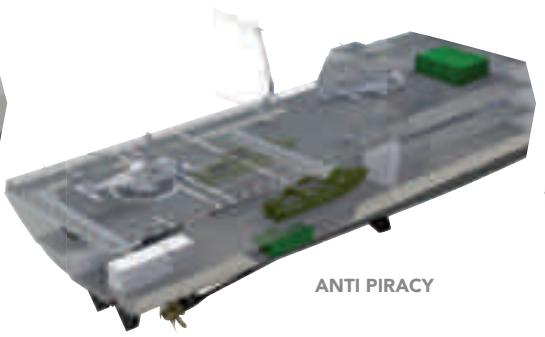
ROLE SWITCHING: DEDICATED CAPABILITY PACKAGES

FLEXIBILITY FOR THE FUTURE

On top of traditional naval warfare tasks, today's navies face growing challenges in the field of maritime security and Humanitarian Aid & Disaster Relief (HADR). The number of tasks increases while the number of ships remains the same or even decreases. Fully developed to execute current tasks and cater for future capabilities, the Damen CROSSOVER is the ultimate mission modular naval concept. Pivotal to this innovative solution is the so-called X-Deck – a single, flexible deck to handle, store, operate and deploy mission equipment, fast RHIBs, as well as landing craft. As multiple modes of access and handling are provided, future systems – unknown at present – will be able to be fitted and operated.



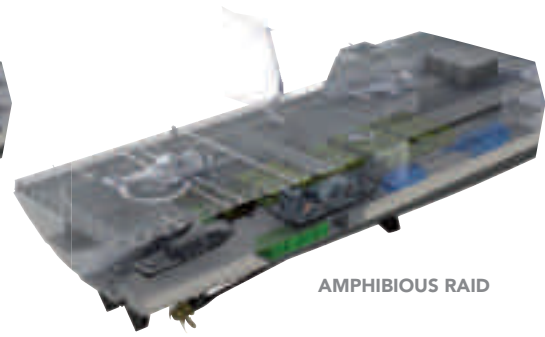
HUMANITARIAN AID & DISASTER RELIEF



ANTI PIRACY



ANTI SUBMARINE WARFARE



AMPHIBIOUS RAID

OFFSHORE PATROL

Damen Offshore Patrol Vessels (OPVs) have been specifically developed for navies and coastguards for a wide variety of tasks and for regions with a low level of threat.

STAN PATROL

The Inshore Patrol Vessels are based on the Sea Axe (Axe Bow) hullform, which provides unrivalled seakeeping characteristics, resulting in a much higher operability compared to conventional hull forms.

INTERCEPTORS AND RHIBS

Speed and extreme manoeuvrability are the obvious criteria for the Interceptors and RHIBs and Damen has given it more than plenty of that. These vessels are the best choice for anti-smuggling or interception duties.



HOLLAND CLASS OPV



STAN PATROL 5009



INTERCEPTOR 1102



PATROL

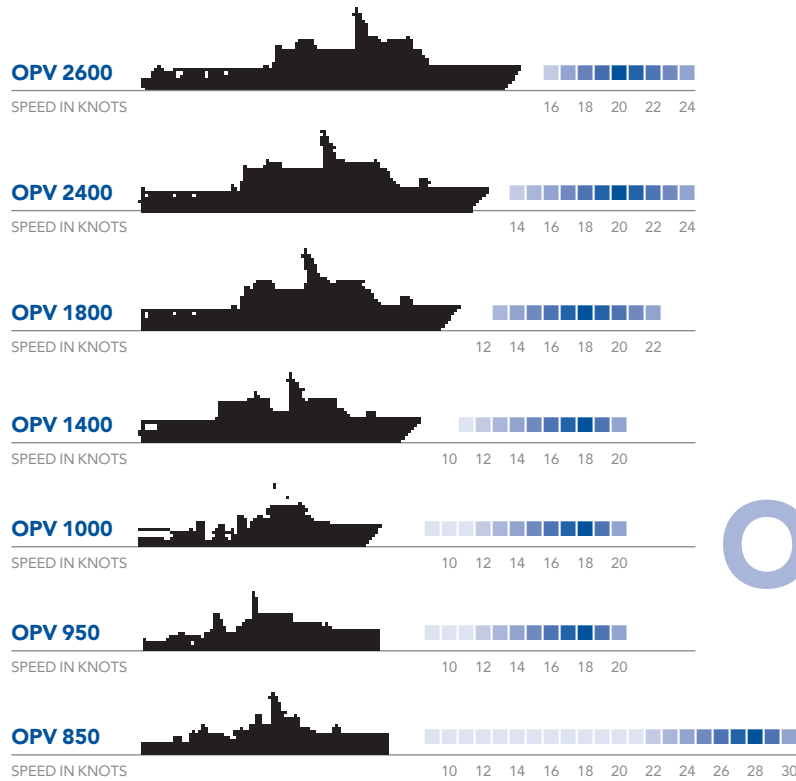


Damen Offshore Patrol Vessels (OPVs) have been specifically developed for navies and coastguards for a wide variety of tasks and for regions with a low level of threat.

Damen Offshore Patrol Vessels (OPVs) range from 1,000 to 3,750 tonnes displacement.

Operations they are ideal for include:

- Military security (Border & EEZ surveillance, anti-piracy and terrorism).
- Marine safety (SAR, oil pollution detection).
- Humanitarian tasks (Disaster relief, logistic operations).



OFFSHORE PATROL



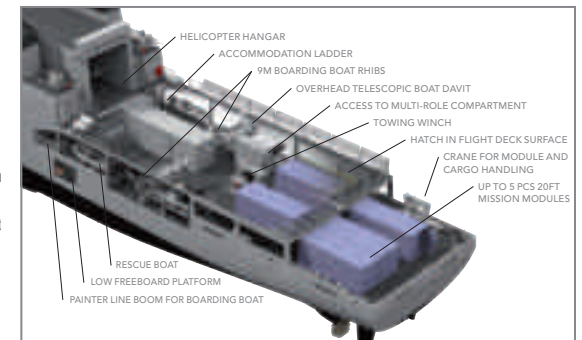
RECESS AND/OR STERN SLIPWAY

Damen offers a choice in deployment of the boarding boats from either a side shell recess with a davit, or from a stern slipway with visor door. More than 25 Damen-built patrol vessels of various sizes have a stern slipway in operation.



HELICOPTER FACILITIES

Damen OPVs can accommodate an organic helicopter up to the 10 tonne-class, such as the Sea Hawk and NH-90. A flight deck and hangar space with adjacent service spaces and flight control facilities are provided.



OPV 2600 AFT MAINDECK LAYOUT

- HELICOPTER HANGAR
- ACCOMMODATION LADDER
- 9M BOARDING BOAT RHIBS
- OVERHEAD TELESCOPIC BOAT DAVIT
- ACCESS TO MULTI-ROLE COMPARTMENT
- TOWING WINCH
- HATCH IN FLIGHT DECK SURFACE
- CRANE FOR MODULE AND CARGO HANDLING
- UP TO 5 PCS 20FT MISSION MODULES
- RESCUE BOAT
- LOW FREEBOARD PLATFORM
- PAINTER LINE BOOM FOR BOARDING BOAT



OFFSHORE PATROL VESSEL 1400



OFFSHORE PATROL VESSEL 1800

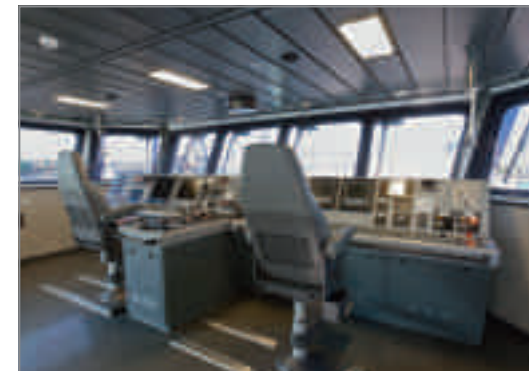




OFFSHORE PATROL VESSEL 2400



OFFSHORE PATROL VESSEL 2600



OFFSHORE PATROL VESSEL - INTERIOR

While based on proven technology and designs, Damen's OPVs are constantly updated with the latest operational requirements and new techniques. With the help of our clients and the highly experienced Damen R&D Department the newly developed Multi Mission Bay (MMB) concept has been adopted into the OPV designs. Additionally, the recent developed stern slipway (very successfully proven by the Royal Netherlands Navy) will be included in the new MMB concept.

OFFSHORE PATROL

To answer today's requirements, OPV designs are based on:

- High quality accommodation, adaptable to tasks.
- Having limited military systems on board.
- High level of proven technology.
- 24/7, 365 day availability.
- Economic patrolling (modern hull forms and propulsion).
- Excellent inspection capabilities (boarding boats and helicopter facilities).



OFFSHORE PATROL VESSEL 850



OFFSHORE PATROL VESSEL 950



OFFSHORE PATROL VESSEL 1000



STAN PATROL 4207



STAN PATROL 5009

SEA AXE





STAN PATROL 5509



STAN PATROL 6011



STAN PATROL 4708 FOR U.S. COASTGUARD

STAN PATROLS

Advantages:

- Particular attention paid to improvement of the seakeeping characteristics.
- Both the Enlarged Ship Concept and the Sea Axe design ensure unrivalled seakeeping behaviour and significant reduction in fuel consumption.
- Maximum consideration given to reducing construction fatigue.
- Ergonomic design ensures comfort and safety.
- Noise and vibration levels meet most demanding international standards.



STERN SLIPWAY



STERN SLIPWAY STAN PATROL 4207



FCS 3307 SECURITY



FCS 5009 SECURITY



The Inshore Patrol Vessels are based on the Sea Axe (Axe Bow) hullform, a joint development of Damen with Delft University of Technology, which has a global reputation in the field of ship hydromechanics. This hull form provides unrivalled seakeeping characteristics, resulting in much higher operability compared to conventional hull forms. As well as this, the Sea Axe is a very economical hull shape, both at patrol and sprint speed.



TESTING THE AXE BOW HULL FORM



STAN PATROL 1204

STAN PATROL 6011

SPEED IN KNOTS



STAN PATROL 5509

SPEED IN KNOTS



STAN PATROL 5009

SPEED IN KNOTS



STAN PATROL 4207

SPEED IN KNOTS



STAN PATROL 3007

SPEED IN KNOTS



STAN PATROL 2205

SPEED IN KNOTS



STAN PATROL 1605

SPEED IN KNOTS



STAN PATROL 1605 FRP

SPEED IN KNOTS



STAN PATROL 1204

SPEED IN KNOTS



CUSTOMS



ROYAL NAMING CEREMONY OF 'P99'



MINISTRY OF TRANSPORT



NATIONAL POLICE

STAN PATROLS



STAN PATROL 1605



STAN PATROL 1605 FRP



STAN PATROL 2205



STAN PATROL 3007



Ergonomic layout of the helmsman's position, with all controls located around the wheel. Shock mitigating seats for safety and comfort.



INTERCEPTOR 1102



INTERCEPTOR 1503



INTERCEPTOR 2004



INTERCEPTOR 2605



RHIB 1100-1250



RHIB 900-1050



CABIN RHIB 1050

RIGID HULL INFLATABLE BOATS
The Damen Rigid Hull Inflatable Boat (RHIB) is designed for high-speed patrol duties in all waters. Speed and extreme manoeuvrability are the obvious criteria for the RHIB and this vessel certainly lives up to expectations. With three fully exposed standing places and seats, this vessel is the best choice for anti-smuggling or interception duties.

The Damen Interceptor portfolio ranges from the container-transportable 55+ knots version up to the full-fledged 26 m high-speed chase vessel. Reliable in all aspects and extremely effective.

INTERCEPTORS AND RHIBS

- Proven design, based on experience and feedback.
- Designed and built as a workboat for professional use.
- Top quality equipment and materials.
- Off the shelf propulsion – easy and cost-effective maintenance.
- Excellent manoeuvrability and trim control.
- Very good stability, improving safety.

INTERCEPTOR 2605

SPEED IN KNOTS



40 42 44 46 48 50

INTERCEPTOR 2004

SPEED IN KNOTS



38 40 42 44 46 48 50

INTERCEPTOR 1503

SPEED IN KNOTS



32 34 36 38 40 42 44 46 48 50 52 54

INTERCEPTOR 1102

SPEED IN KNOTS



28 30 32 34 36 38 40 42 44 46 48 50 52 54



CONTAINER-TRANSPORTABLE DAMEN INTERCEPTOR 1102

The Damen Interceptor 1102 is easily container-transportable. An Interceptor prototype was sent all over the world in a container during its testing period. Police forces, coastguards and navies have now tested the Interceptor in real life conditions. The objective of this programme was to make sure the production version would be highly reliable and optimised by professionals.

LANDING PLATFORM DOCKS

LANDING SHIPS

LANDING CRAFT

Damen has an impressive track record with regard to amphibious vessels. These ships are highly specialised units providing the tools to achieve mission objectives on land, while coming from the sea. Typical operations range from Humanitarian Aid and Disaster Relief to amphibious raids in a hostile environment.

The integrated logistics process of transferring assets from ship to shore is key to the success of these operations.

The Damen Amphibious Series provides an entire range of highly flexible vessels and craft to provide our customers with a complete solution for their requirements.



LANDING PLATFORM DOCKS



LANDING SHIPS



LANDING CRAFT

AMPHIBIOUS SERIES



— AMPHIBIOUS —
SERIES





LANDING PLATFORM DOCK 'HNLMS ROTTERDAM' LPD



LANDING PLATFORM DOCK 'HNLMS JOHAN DE WITT'



LANDING PLATFORM DOCK – "BAY CLASS"

LANDING PLATFORM DOCKS

ENFORCER Landing Platform Docks have been true 'workhorses' for their operators, being highly effective and flexible whatever demands are made of them.

By using the latest technology, customer feedback and by drawing on our vast experience, the ENFORCER is continually being improved. This includes equipment and material upgrades, internal logistics and enhancing flexibility.

ENFORCER 10000

DEADWEIGHT



7000 8000 9000 10000

ENFORCER 9000

DEADWEIGHT



7000 8000 9000 10000

ENFORCER 8000

DEADWEIGHT



7000 8000 9000 10000

ENFORCER 7000

DEADWEIGHT



7000 8000 9000

AMPHIBIOUS

SERIES



LANDING SHIP LOGISTIC 70



LANDING SHIP LOGISTIC 60



LANDING SHIP LOGISTIC 60

DEADWEIGHT



750

LANDING SHIP LOGISTIC 55

DEADWEIGHT



750

LANDING SHIP LOGISTIC 50

DEADWEIGHT



500

LANDING SHIP LOGISTIC 40

DEADWEIGHT



500

LANDING SHIP LOGISTIC 120

DEADWEIGHT



1,500-1,700

LANDING SHIP LOGISTIC 100

DEADWEIGHT



1,000-1,300

LANDING SHIP LOGISTIC 80

DEADWEIGHT



500

LANDING SHIP LOGISTIC 70

DEADWEIGHT



1,500

LANDING SHIPS

The Damen Landing Ship range is a state-of-the-art flexible Class designed to fulfil all traditional Landing Ship mission requirements, as well as the support and secondary mission tasks required by modern naval platforms of this size.

Implementing many smart design features the Damen Landing Ship design boosts flexibility, creating vessels with more value throughout their lifetime.



AMPHIBIOUS

SERIES



Damen Landing Craft have been extremely effective and adaptable, with the vessels being very successful in missions they were not specifically designed for. During disaster relief operations, the Landing Craft are particularly useful when harbour infrastructure has been destroyed, being able to provide aid and support on the spot. During counter piracy operations a flotilla of small craft were operating and supported from a Landing Craft as a Forward Operating Base for several days. A Damen Landing Craft is your long-term amphibious solution.



SHIP-TO-SHORE MOVEMENTS



AMPHIBIOUS OPERATIONS



HUMANITARIAN AID & DISASTER RELIEF

Nowadays amphibious operations are subject to doctrine shifts towards Ship-to-Objective Manoeuvre (STOM), Over The Horizon (OTH) and Forward Operating Base (FOB) tactics.

LANDING CRAFT

As the distance between the mother ship and Area of Operations/Landing Area has increased over the years a new approach to designing Landing Craft was needed, based on the latest developments and client requirements. As a result, faster Landing Craft have been developed, which are able to maintain their performance.



LANDING CRAFT VEHICLE PERSONNEL "LCVP 1604"



ADVANCED FAST LANDING CRAFT UTILITY "AFLCU"



ADV. FAST LANDING CRAFT MECHANIZED "AFLCM"



LANDING CRAFT UTILITY "LCU"

NAVAL AUXILIARIES

Auxiliary vessels are often considered the workhorses for navies carrying out crucial logistics operations.

Damen has vast experience in building auxiliaries in both the naval and the commercial arena.

SAIL TRAINING VESSELS

Damen helps customers to give the best nautical and navigational training possible with our Sail Training Vessels.

Navy cadet training has never been so easily put into practice.

SUPPORT VESSELS

As well as the auxiliaries Damen offers many non-combatants which offer all types of support including:

submarine rescue ships, logistic support vessels, diving support vessels, training vessels, lighter barges and tugs



JOINT SUPPORT SHIP 'KAREL DOORMAN'



SAIL TRAINING VESSEL 'SHABAB OMAN II'



AZIMUTH TRACTOR DRIVE TUG 2909



AUXILIARIES





AUXILIARY OILER REPLENISHMENT VESSEL 'AMSTERDAM'



REPLENISHER 16000 LSV

- REPLENISHER 16000 LSV**
- Hull shape gives vessel ability to reach the required speeds but with minimum use of power.
 - Hybrid propulsion system for fuel efficiency and redundancy.
 - Highly efficient medium speed diesel engines for low fuel consumption and low maintenance costs.
 - Compact arrangement for efficient crewing & day-to-day operations.

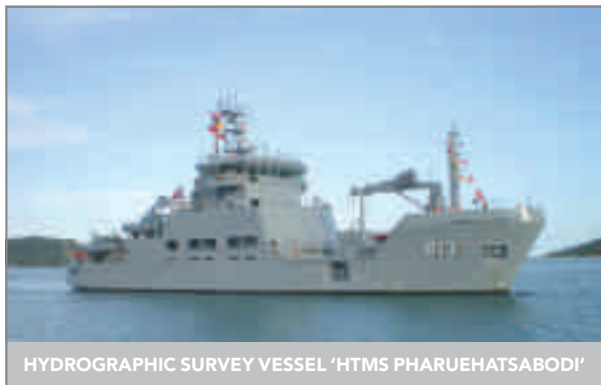
Auxiliary vessels are often considered the workhorses for navies carrying out crucial logistics operations.

NAVAL AUXILIARIES

Damen has vast experience in building auxiliaries in both the naval and the commercial arena. Damen Schelde Naval Shipbuilding, our naval shipbuilder, can match commercial and military standards and specifications, enabling it to offer military enhancements according to customer specifications. Vessels are equipped with the latest sensor and weapon suites and cutting-edge communication, automation and propulsion systems.



LOGISTIC SUPPORT VESSEL 6513 'HNLMS PELIKAAN'



HYDROGRAPHIC SURVEY VESSEL 'HTMS PHARUEHATSABODI'



HYDROGRAPHIC SURVEY VESSEL 'HNLMS SNELLIUS'

Damen is an experienced design and construction partner for Hydrographic Survey Vessels. Decades of experience with both naval and commercial Hydrographic Survey Vessels means that Damen can offer its customers an unbeatable price-quality ratio. Damen ensures that every requirement is met in terms of hull shape, sensor suite and systems. As well as the hydrographic research function, Damen offers add-ons such as a Search & Rescue, mine-sweeping and training functions.





'CISNE BRANCO'



'STAD AMSTERDAM'



'DE EENDRACHT'



'SHABAB OMAN II'

SAIL TRAINING VESSELS

Damen helps customers give the best nautical and navigational training possible with our Sail Training Vessels. Navy cadet training has never been so easily put into practice. The Damen Sail Training Vessels are designed by naval architect Gerard Dijkstra to establish optimal sailing performance.



'SHABAB OMAN II'

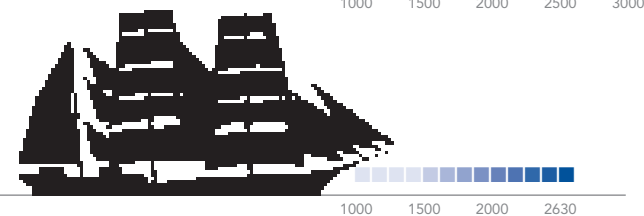
SAIL TRAINING VESSEL 3000

SAIL AREA (m²)



SAIL TRAINING VESSEL 2630

SAIL AREA (m²)





FAST CREW SUPPLIER 3307



AZIMUTH TRACTOR DRIVE TUG 2909



MULTI CAT 2510 TRIAL



DIESEL LIGHTER BARGE 3009



AZIMUTH STERN DRIVE TUG 2509



WORLDWIDE SUPPORT SHIP 8316

SERCO MARINE LIMITED

Damen's huge auxiliary building capability is demonstrated by a large three-year contract we completed for Serco in 2010, involving 29 new vessels.

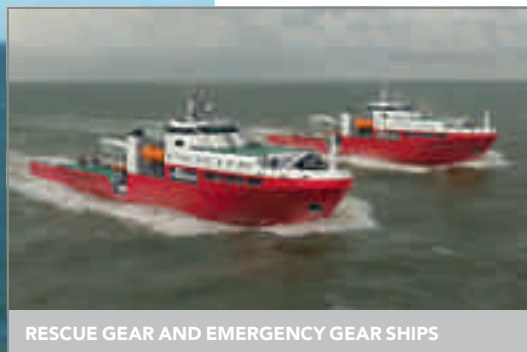
The order included pilot boats, supply boats, tugboats, high-speed craft and barges. The 16 Damen vessel types included in the order ranged between 12 m and 86 m and they were built at Damen shipyards in the Netherlands, Poland and Romania.

The 29 vessels will enable Serco to support the British Royal Navy at its bases in Portsmouth, Devonport and the Clyde.

As well as the auxiliaries, such as the Hydrographic Survey Vessel and Auxiliary Oiler Replenishment vessel, Damen offers many other non-combatants which offer many other types of support including:

SUPPORT VESSELS

- Submarine rescue ships
- Logistic support vessels
- Diving support
- Training vessels
- Lighter barges
- Tugs



RESCUE GEAR AND EMERGENCY GEAR SHIPS



SUPPORT SHIP 'HNLMS MERCUUR'



ASD TUGS

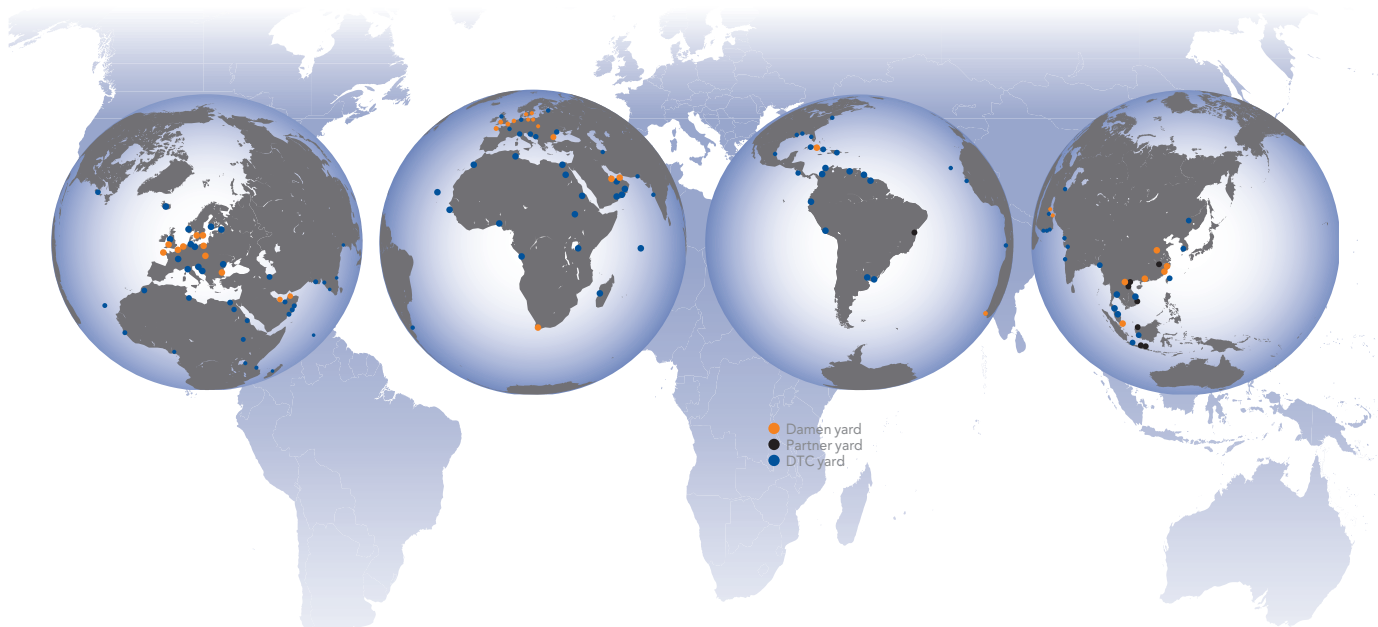


SALVAGE TUG 6014

Damen Technical Cooperation enables you to build your Damen vessel locally, anywhere in the world. We provide you with a prefabricated shipbuilding kit and can, on request, combine this with expert assistance, training and backup.

By using standardised components it is possible to make a custom-built design, fulfilling the specific local requirements. This cost-efficient concept can be applied to the full range of Damen vessels for a wide variety of marine operations. One in five Damen vessels are built on-site by Damen Technical Cooperation. In addition, clients can take the design-only option and have the vessel built by a shipyard of their choice.

DAMEN TECHNICAL COOPERATION BUILDING ON SITE





SIGMA 10514 PKR



DTC SHIPBUILDING KIT



OPV 2400



COMMISSIONING & TRIALS



WORLDWIDE DELIVERIES



MAINTENANCE MANAGEMENT



REPAIR & CONVERSIONS



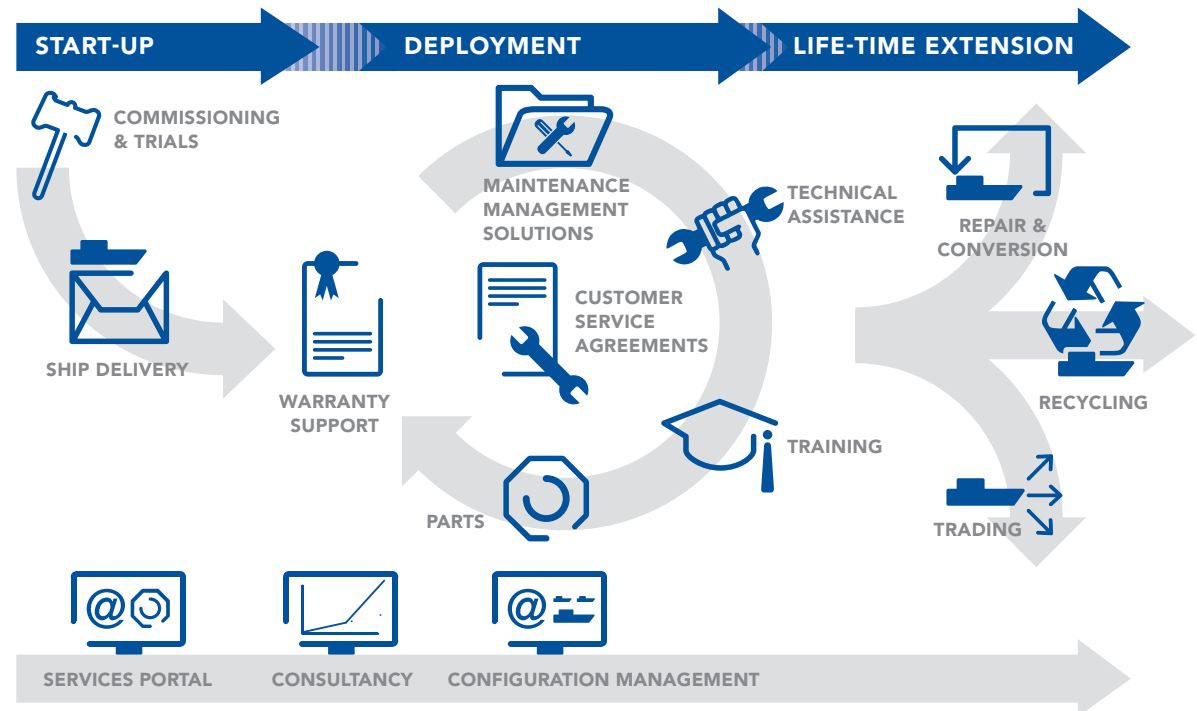


DAMEN SERVICES CUSTOMERS IN ACHIEVING THEIR GOALS

Damen Services offers a wide-ranging portfolio of customer support and after-sales services covering the complete vessel's lifecycle; through the start-up and deployment phases, to the second life or disposal phase.

We believe that our wide range of products helps our customers achieve their goals in terms of availability, reliability and lifecycle costs. Customers may benefit by using one of our services or a strategic combination of several products.

COMPLETE LIFECYCLE SUPPORT





REFERENCES