

The Cradle of Maritime Security

NAVAL & SPECIAL SHIP

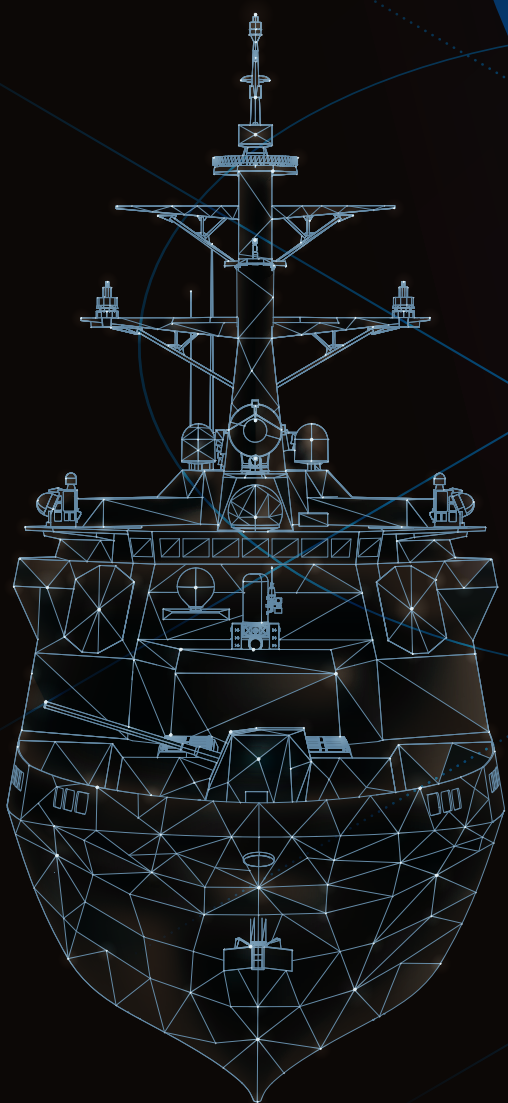




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ABOUT HYUNDAI HEAVY INDUSTRIES

THE WORLD'S NO.1 SHIPBUILDER

Hyundai Heavy Industries(HHI) is an integrated heavy industry company made up of 4 business units; Shipbuilding, Naval & Special Ships, Offshore and Engine & Machinery.

Since 1985, HHI group has been ranked as the top shipbuilder based on the number of ships built per year, and has maintained the leading position in the global shipbuilding market ever since.

In 2015, HHI has earned the highest reputation again by accomplishing its accumulated delivery of 2,000 quality vessels to worldwide ship owners for the first time in the world.

ESTABLISHED	1972	AVERAGE ANNUAL SHIP PRODUCTION	100+
SHIPS DELIVERED	2,200+	EMPLOYEES	13,000+
M ² IN AREA	5,600,000		

BIGGER & BETTER

Hyundai Heavy Industries operates 10 drydocks and 1 shiplift equipped with 10 Goliath cranes and modern construction facilities in Ulsan. Each drydock and facilities are arranged so that the most efficient and streamlined construction can take place in consideration of the characteristics of the vessel to be built.

Dry dock No. 6, 7 and Ship Lift are allocated for sophisticated small and medium size special vessels such as naval and customized service vessel. This prestigious shipbuilding mission is assigned to a dedicated organization named Naval & Special Ship Business Unit (NSSBU), which has specialized manpower with independent building facilities located in the company's secured zone.

Dock	Length	Width	Depth	Crane	Max. size DWT	Outfitting quay
NO. 1	390m	80m	12.7m	1 × 1,290t Goliath 2 × 450t Goliath	700,000	Combined length: 7,400m
NO. 2	500m	80m	12.7m	2 × 40t Jib 2 × 30t Jib		
NO. 3	672m	92m	13.4m	1 × 1,290t Goliath 2 × 450t Goliath 1 × 150t Jib 1 × 80t Jib 2 × 30t Jib 1 × 20t Jib	1,000,000	
NO. 4	380m	65m	12.7m	2 × 350t Jib 1 × 200t Jib	400,000	
NO. 5	380m	65m	12m	1 × 150t Jib 1 × 80t Jib		
NO. 6	260m	43m	12m	1 × 200t Jib 1 × 150t Jib	179,000	
NO. 7	170m	25m	11m		68,000	
Ship Lift	100m	16m	-	1 × 60t Jib	25,600	
NO. 8	460m	70m	12.7m	2 x 900t Goliath 4 x 30t Jib	500,000	
NO. 9	460m	70m	12.7m	1 x 20t Jib		
NO. 10	490m	115m	13.5m	2 x 1,600t Goliath	1,000,000	





MARITIME SECURITY SOLUTION PROVIDER



NSSBU

NAVAL & SPECIAL SHIP BUSINESS UNIT

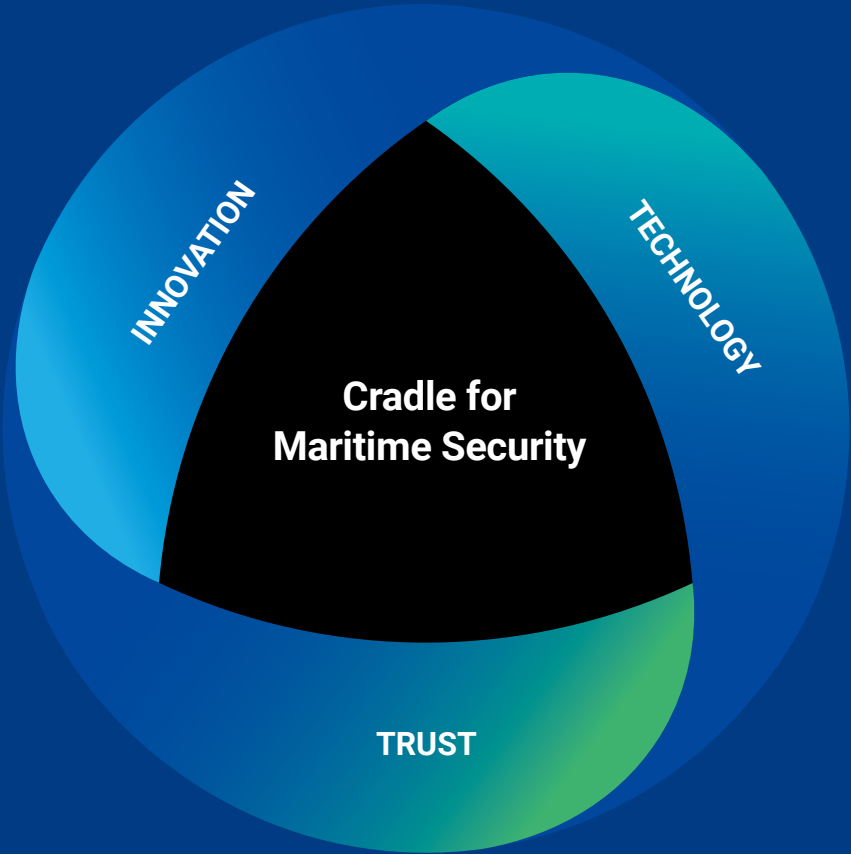
MAN POWER	DELIVERED
 1300+	 130+

With experienced personnel and modern facilities, NSSBU has been providing maritime security solutions for clients for nearly 5 decades as a designer, builder, and systems integrator. As a licensed defense company and engineering consultant, NSSBU is applying state-of-the-art technology to design and build modern, reliable naval vessels based on proven technology and abundant experience.

With round-the-clock intensive R&D activities, HHI is providing its customers with comprehensive services from initial feasibility studies for top level requirements to Integrated Logistics Support or Product Life User Support.

CUTTING EDGE TECHNOLOGY

Our cutting edge shipbuilding technology has positioned HHI to lead the naval shipbuilding industry in the design and construction of a variety of modern sophisticated naval vessels.



INNOVATION

HHI provides innovative and optimal solutions that fulfill customer expectations by thorough assessment of requirements and constraints.



TECHNOLOGY

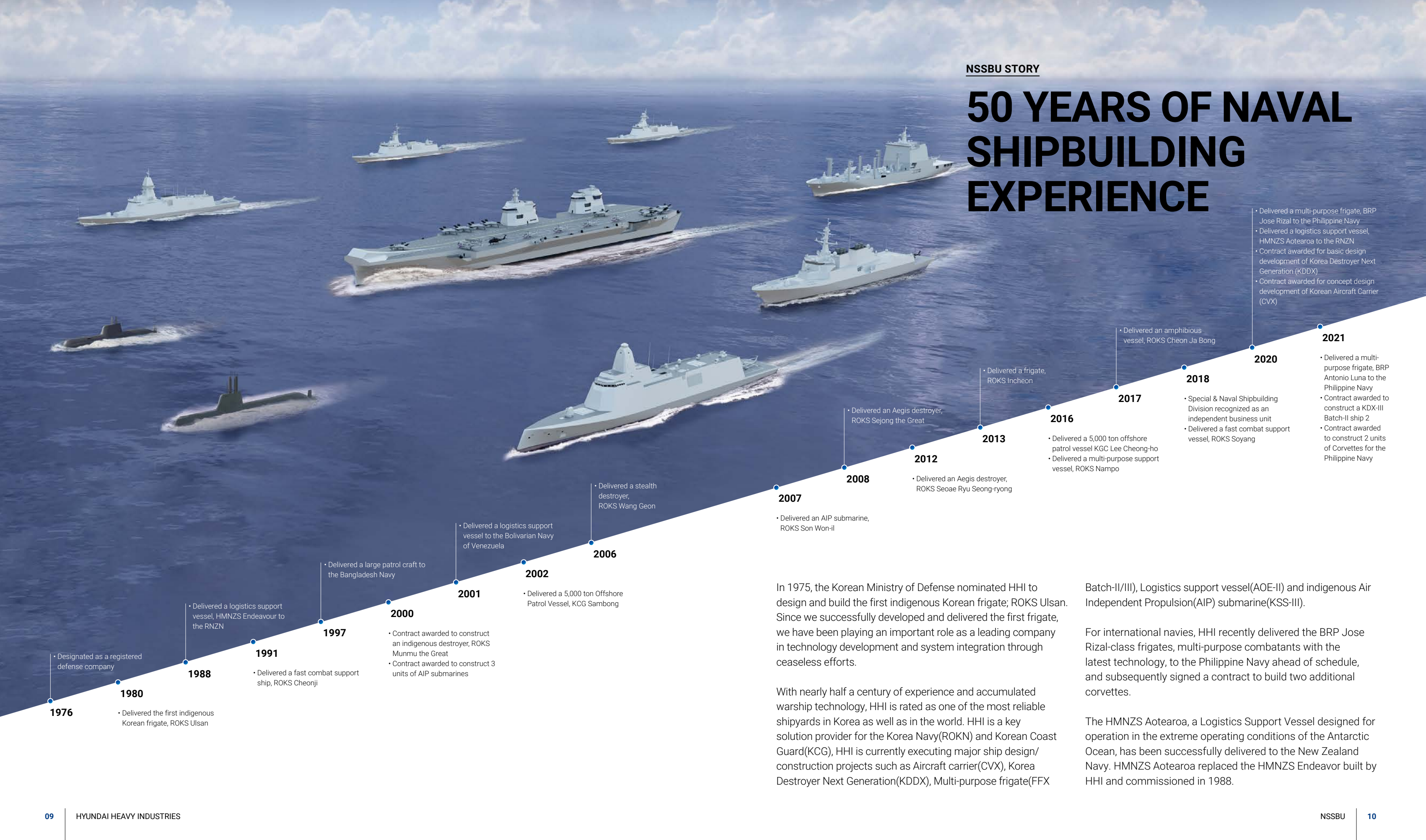
HHI is committed to utilizing the latest technology based on its diverse experience in carrying out various naval ship development projects.



TRUST

HHI repays customers' trust by delivering quality products and services perfectly tailored to customers' requirements, on-time and on-budget.

50 YEARS OF NAVAL SHIPBUILDING EXPERIENCE



1976
• Designated as a registered defense company

1980
• Delivered the first indigenous Korean frigate, ROKS Ulsan

1988
• Delivered a logistics support vessel, HMNZS Endeavour to the RNZN

1991
• Delivered a fast combat support ship, ROKS Cheonji

1997
• Delivered a large patrol craft to the Bangladesh Navy

2000
• Contract awarded to construct an indigenous destroyer, ROKS Munmu the Great
• Contract awarded to construct 3 units of AIP submarines

2001
• Delivered a logistics support vessel to the Bolivarian Navy of Venezuela

2002
• Delivered a 5,000 ton Offshore Patrol Vessel, KCG Sambong

2006
• Delivered a stealth destroyer, ROKS Wang Geon

2007
• Delivered an AIP submarine, ROKS Son Won-il

2008
• Delivered an Aegis destroyer, ROKS Sejong the Great

2012
• Delivered an Aegis destroyer, ROKS Seoae Ryu Seong-ryong

2013
• Delivered a 5,000 ton offshore patrol vessel KGC Lee Cheong-ho
• Delivered a multi-purpose support vessel, ROKS Nampo

2016
• Delivered a frigate, ROKS Incheon

2017
• Delivered an amphibious vessel, ROKS Cheon Ja Bong

2018
• Special & Naval Shipbuilding Division recognized as an independent business unit
• Delivered a fast combat support vessel, ROKS Soyang

2020
• Delivered a multi-purpose frigate, BRP Jose Rizal to the Philippine Navy
• Delivered a logistics support vessel, HMNZS Aotearoa to the RNZN
• Contract awarded for basic design development of Korea Destroyer Next Generation (KDDX)
• Contract awarded for concept design development of Korean Aircraft Carrier (CVX)

2021
• Delivered a multi-purpose frigate, BRP Antonio Luna to the Philippine Navy
• Contract awarded to construct a KDX-III Batch-II ship 2
• Contract awarded to construct 2 units of Corvettes for the Philippine Navy

In 1975, the Korean Ministry of Defense nominated HHI to design and build the first indigenous Korean frigate; ROKS Ulsan. Since we successfully developed and delivered the first frigate, we have been playing an important role as a leading company in technology development and system integration through ceaseless efforts.

With nearly half a century of experience and accumulated warship technology, HHI is rated as one of the most reliable shipyards in Korea as well as in the world. HHI is a key solution provider for the Korea Navy(ROKN) and Korean Coast Guard(KCG), HHI is currently executing major ship design/construction projects such as Aircraft carrier(CVX), Korea Destroyer Next Generation(KDDX), Multi-purpose frigate(FFX

Batch-II/III), Logistics support vessel(AOE-II) and indigenous Air Independent Propulsion(AIP) submarine(KSS-III).

For international navies, HHI recently delivered the BRP Jose Rizal-class frigates, multi-purpose combatants with the latest technology, to the Philippine Navy ahead of schedule, and subsequently signed a contract to build two additional corvettes.

The HMNZS Aotearoa, a Logistics Support Vessel designed for operation in the extreme operating conditions of the Antarctic Ocean, has been successfully delivered to the New Zealand Navy. HMNZS Aotearoa replaced the HMNZS Endeavor built by HHI and commissioned in 1988.

SCOPE OF SERVICE

TAILORED SOLUTION PROVIDER

HHI NSSBU provides A to Z package service from development of design to lifetime after sales service in accordance with the customer's requirement. NSSBU has the ideal experience and expertise to ensure delivery of such service to the satisfaction of the customer on time within the budget.



DESIGN & ENGINEERING

Solutions optimized for customer requirements and operating environments



PRODUCTION & CONSTRUCTION

Highest quality & on-time delivery



SYSTEM INTEGRATION

Impeccable and Seamless system interface & integration



TEST & TRIAL

Proven performance and seaworthiness



INTEGRATED LOGISTICS SUPPORT & LIFECYCLE SUPPORT

High levels of availability at a reasonable cost



TRAINING & TECHNICAL ASSISTANCE

Long term commitment for knowledge-sharing

PRODUCTS & SERVICES

Based on various types of naval vessels successfully delivered to global ship owners, NSSBU is fully capable of developing all kinds of naval vessel. NSSBU has grown based on the trust it has received from clients and is gradually accumulating its credits more and more from global customers.

DESTROYER	FRIGATE / CORVETTE / FAST ATTACK CRAFT	SUBMARINE	LOGISTICS SUPPORT VESSEL
HDD-11000	HDF-4000	HDS-3000	HDA-34000
HDD-10000	HDF-3800	HDS-1800	HDA-24000
HDD-7000	HDF-3500	HDS-800	HDA-23000
HDD-5000	HDF-3100	HDS-400	HDA-22000
	HDF-3000		HDA-20000
	HDF-2600		HDA-10000
	HDC-500		HDA-8000

MULTI-PURPOSE SUPPORT VESSEL	AMPHIBIOUS VESSEL	TRAINING VESSEL	PATROL VESSEL
HDM-4000	HDL-17000	HDT-5500	HDP-5000
HDM-3000	HDL-13000	HDT-4500	HDP-3000
	HDL-10000	HDT-3000	HDP-2500
	HDL-7000		HDP-1500Neo
			HDP-1000
			HDP-500
			HDP-300

DEFENSE & SECURITY

Destroyer
 Frigate / Corvette / Fast Attack Craft
 Submarine
 Logistics Support Vessel
 Multi-Purpose Support Vessel
 Amphibious Vessel
 Training Vessel
 Patrol Vessel



Destroyer



HDD-11000



HDD-10000



HDD-5000

HDD-11000

170m × 22m × 6m
 11,000 tonnes | 30knots



HDD-10000

165m × 21m × 6m
 10,000 tonnes | 30knots



HDD-7000

150m × 20m × 6m
 7,000 tonnes | 28knots



HDD-5000

150m × 18m × 5m
 5,000 tonnes | 30knots



Frigate / Corvette / Fast Attack Craft



HDF-4000



HDF-3500



HDF-3100



HDF-3000



HDF-2600



HDC-500

HDF-4000

—
129m × 15m × 4m
4,000 tonnes | 30knots



HDF-3800

—
122m × 14m × 4m
3,800 tonnes | 27knots



HDF-3500

—
120m × 14m × 4m
3,500 tonnes | 30knots



HDF-3100

—
115m × 15m × 4m
3,100 tonnes | 25knots



HDF-3000

—
114m × 14m × 4m
3,000 tonnes | 30knots



HDF-2600

—
107m × 14m × 4m
2,600 tonnes | 25knots



HDC-500

—
65m × 9m × 3m
500 tonnes | 40knots





LOA	BREADTH	DRAUGHT	SPEED	RANGE	EDURANCE
115m	15m	4m	25kts	4,500nm	20 days

HDF-3100

Overview
HDF-3100 is a state-of-the-art frigate based upon Hyundai Heavy Industries’ long term experience with ROK navy and other foreign navies. To take full advantage of sensors, weapons and countermeasure systems, HDF-3100 incorporates signature reduction technologies. These include designing for stealth, the use of radar absorbent materials, as well as techniques to reduce acoustic, magnetic, infra-red and other signatures. Furthermore, the vessel is configured with the most powerful combat system suite and capable of conducting multi-domain(AAW, ASuW, ASW, EW, NGFS) operations and many more.

Mission

- AAW, ASuW, ASW, EW and asymmetric warfare operations
 - Maritime and Air surveillance
 - Patrol & maritime security
- Control of exclusive economic zone (EEZ)
 - Special forces activities
 - Counter Terror/Piracy Operation

Powerful combat system suit for conducting multi-domain operation

Multi-layered self-defense capability

Configurable topside arrangement

Stealthy design and clean superstruct for reduced RCS signature

Submarine



HDS-3000



HDS-1800



Depot Maintenance & Midlife Upgrade

HDS-3000

—

3,000 tonnes | 20knots

HDS-1800

—

1,800 tonnes | 21knots

HDS-800

—

800 tonnes | 15knots

HDS-400

—

400 tonnes | 15knots



SLBM Launch

Logistic Support Vessel



HDA-24000



HDA-23000



HDA-8000

HDA-34000

—
237m × 32m × 9m
34,000 tonnes | 16knots



HDA-24000

—
170m × 25m × 8m
24,000 tonnes | 16knots



HDA-23000

—
190m × 25m × 8m
23,000 tonnes | 24knots



HDA-22000

—
165m × 24m × 8m
22,000 tonnes | 16knots



HDA-20000

—
175m × 25m × 7m
20,000 tonnes | 21knots



HDA-10000

—
135m × 18m × 9m
10,000 tonnes | 19knots



HDA-8000

—
135m × 18m × 7m
8,000 tonnes | 20knots



Multi-Purpose Support Vessel



HDM-4000



HDM-3000

HDM-4000

—
115m × 17m × 5m
4,000 tonnes | 23knots



HDM-3000

—
103m × 15m × 3m
3,000 tonnes | 22knots



Amphibious Vessel



HDL-13000



HDL-7000



HDL-17000

176m × 25m × 6m
17,000 tonnes | 18knots



HDL-13000

160m × 25m × 6m
13,000 tonnes | 18knots



HDL-10000

140m × 24m × 5m
10,000 tonnes | 16knots



HDL-7000

125m × 19m × 5m
7,000 tonnes | 23knots



Training Vessel



HDT-5500



HDT-4500



HDT-3000

HDT-5500

145m × 18m × 5m
5,500 tonnes | 24knots



HDT-4500

105m × 15m × 5m
4,500 tonnes | 18knots



HDT-3000

115m × 14m × 4m
3,000 tonnes | 28knots



Patrol Vessel



HDP-3000



HDP-1500Neo



HDP-500

HDP-5000

150m × 16m × 5m
5,000 tonnes | 26knots



HDP-3000

115m × 14m × 4m
3,000 tonnes | 28knots



HDP-2500

98m × 14m × 4m
2,500 tonnes | 20knots



HDP-1500Neo

81m × 13m × 3m
1,500 tonnes | 21knots



HDP-1000

90m × 11m × 3m
1,000 tonnes | 30knots



HDP-500

63m × 9m × 3m
500 tonnes | 35knots



HDP-300

57m × 8m × 2m
300 tonnes | 35knots



LOA	BREADTH	DRAUGHT	SPEED	RANGE	EDURANCE
81m	13m	3m	21kts	5,500nm	28 days

HDP-1500Neo

Overview

HDP-1500Neo is an export variant of Offshore Patrol Vessel developed by Hyundai Heavy Industries. As a fully tested and proven ship, HDP-1500Neo is based on decades of know-how, experience and the latest shipbuilding technologies. The vessel is applied with a stealthy design and clean superstructure for reduced RCS signature. Optimized, internal layout provides better crew habitability. With its extended operation range and endurance, the vessel can cover wide area of water while featuring a reconfigurable spaces to accommodate mission modules for various operational requirements.

Mission

- Patrol and protection of border/EEZ
- Anti-smuggling and anti-piracy
- HADR and SAR
- ASuW operation, Special mission (mission module)



Customized combat suite
(Weapon & Sensors)



Stern launching system for RHIB



Humanitarian Aids & Disaster Relief(HADR)
Search And Rescue(SAR)



Mission bay

R&D ACTIVITIES

STATE-OF-THE-ART TECHNOLOGY

Modern warship technology advances other myriad branches of technologies and poses at the highest technological level. Therefore, R&D is essential for naval shipbuilder to remain at the forefront of technical development.

HHI places a strong emphasis on keeping abreast of the principle and has established intensified R&D works. Hyundai Heavy Industries strengthens its technological competitiveness by developing cutting-edge technologies through tireless research and development efforts.

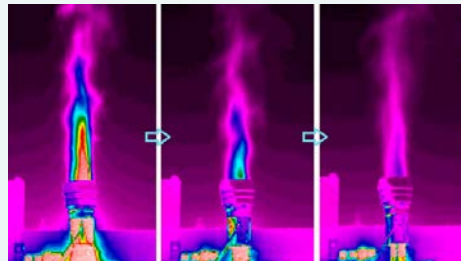
We operate the Hyundai Maritime Research Institute, the Naval Ship Research Department, and the Green Power & Engine System Research Department. These departments strive to develop core technologies to improve the viability of submarines and surface vessels.

We are committed to delivering greater value to our clients with continued focus on technology innovation by future expanding R&D infrastructure and securing excellent research manpower.

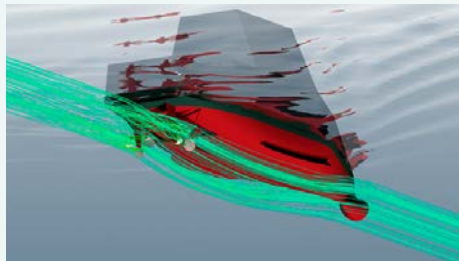
HHI is also targeting to secure future unrivaled technologies. A mid-to long-term product/technology roadmap has been prepared to secure unrivaled competitiveness. We have carefully selected the core development items which will be ultimately used for building advanced ships and futuristic autonomous shipyards by combining cutting-edge ICT and intelligent robot technology.



Propeller Cavitation Test



RCS/IR Simulation



Hydrodynamics Simulation



HMRI towing tank test facility

QUALITY MANAGEMENT & ISO 9001

HHI strives to build customer trust by delivering quality products and services. To this end, HHI obtained the ISO 9001 and incorporate the standard in its business activities. In addition, under the customer-oriented quality management policy, HHI manages the quality of its products and services in a strategic manner and heeds customer feedback.

Quality management starts with incoming materials and parts, and continues throughout the building stage of a ship and onto final sea trials. HHI's quality management department is, in many ways, the hub of the shipyard. The department, consisted of veteran engineers who are well acquainted with the latest international rule and standard for commercial and military ships including those of the US Navy, NATO, and etc., is completely independent, both in organization and actual operation, and has the full power to carry out all necessary quality management work.

HHI ensures activities to further enhance the quality management system performed in a consistent manner across all entities. HHI conducts quality management maturity assessment to quantify the performance of the quality management system and compare it with that of global companies.

HHI Group revamped the management system of quality failure costs so as to ensure such costs can be tracked with clear ownership and corrective actions assigned, rather than just aggregating failure costs. We have added quality failure cost to KPI to ensure effective quality management, while continuously striving to reduce the cost through a wide range of quality campaigns and inspections.

The effectiveness of our QMS is ensured through annual external audits (by QMS Certification Body) as well as periodic internal audits to boost the quality management level of each team's work process and compliance. Material quality issues observed in regular quality audits are followed up with root cause analysis with the intention to make a fundamental improvement in quality. Our efforts also include assisting business partners in raising their quality management level.

Through periodic quality audits and diagnoses, we identify the root cause of each critical quality issue, supporting the improvement of the QMS level of partner companies. Quality review meetings are held with the partner companies to find issues and share ideas to prevent a recurrence. We also hold a quality contest and reward excellent partner companies to encourage a focus on quality improvement.



ISO 9001 CERT Image



THROUGH-LIFE / IN-SERVICE SUPPORT

SUPPORT & COMMITMENT

Apart from building quality ships, HHI provides comprehensive integrated In-Service Support(ISS), Integrated Logistic Support(ILS) and Operational Support Services, ensuring optimum cost efficiency and system performance throughout their entire product life-cycle of complex systems and solutions, helping you ensure your equipment achieves maximum availability and peak performance. We have long-standing experience with large-scale customer projects.

Your project will be supported throughout its lifetime by fully qualified engineering experts and service support teams. Our expert service teams guarantee that the system is adapted to your operational concept, and ensure customer satisfaction of all systems and products. These services can be fully tailored to your requirements. Our comprehensive integrated support services are your one-stop-solution for all demands around your systems.

In pursuit of full customer satisfaction, our commitment to our customers and partners does not end with the delivery. We are a dependable partner, supporting clients throughout the entire life-span of the system to improve system availability by providing services which cover all aspects of customer support.

HHI also pursues responsible and sustainable international development.

Designed to promote mutual growth and establish sustainable relationships with local manufacturers, HHI's industrial collaboration activities aim to promote responsible and sustainable international development based on cooperative partnership agreements within the framework of controlled technology transfer.

Our international partners can take advantage of our long-accumulated innovative and exclusive resources and know-how while reducing costs and potential risks. To this end, HHI is committed to providing technical assistance to our partners, providing education and training, and developing long-term, constructive relationships.



HHI GLOBAL NETWORK

HYUNDAI HEAVY INDUSTRIES (Overseas Branches)

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THE WORLD'S NO.1 SHIPBUILDER



NAVAL & SPECIAL SHIP BUSINESS UNIT

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