

Product and Service Information

 O W E R C R A F T M A R I N E S D N B H D

POWERCRAFT®

“ We Deliver Concept to Reality ”

Dated – 16.03.2021

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P O W E R C R A F T M A R I N E S D N B H D

P R E F A C E

POWERCRAFT MARINE

CO-FOUNDER

Yuni Ismail, Co-Founder of POWERCRAFT has been involved with the design development of hull forms, propulsion system installations, auxiliary systems and structural design in accordance with classification society requirements since 2004. The design efforts range from conceptual, preliminary design, contract design, through detailed construction design packages for both new construction and vessel refit projects. This includes acting as the customer's technical representative as they take new and refit projects to shipyards, and supporting shipyards' production engineering needs for such projects. He supports engineering contracts worldwide to a wide customer base.

The POWERCRAFT historical experience includes the use of 3D design and engineering software that helps the company meet the needs of demanding clients including recreational boat & yacht builders, military & commercial shipyards, large and small yacht repair as well as refit yards.

In POWERCRAFT we offer to operators with design, project management and workmanship by our professional and expert teams.

BUSINESS GOALS

To achieve POWERCRAFT's aim of becoming a world-class company, the Company maintains a focus on developing and fulfilling its business goals. The Company strives to be a model employer, providing the best employment opportunities to Malaysians in a flexible, friendly and safe working environment. Social Obligation thru Industrial Training, skills development and Other Society Funds.

(Picture- Right: Co-Founder/Owner and Finance Director)





P O W E R C R A F T M A R I N E S D N B H D

BUSINESS FOCUS

MARINE BUSINESS ACTIVITIES

INTEGRATED MARINE SERVICES

Core Business

POWERCRAFT provides its clients with a unique blend of marine design, supply and project management expertise.

As one of only a few company in Malaysia with qualified in-house design expertise, the Company can deliver products of world-class quality that have undergone continual professional design and construction monitoring from conception to completion.

In addition, the Company's directors have both managerial and production backgrounds, responsible for day-to-day engineering production as well as project and company management. The directors have an intimate understanding of all the processes involved in boat construction and know how to achieve a world-class finish.

Moreover, the management has hand-picked the best available shipbuilding talent in Malaysia, forming a team of highly dedicated and skilled individuals with a common purpose.

The Company has an absolute commitment to its products, its employees and to the community.



Powercraft Design Package

Patrol Boat, Fast Ferry
Military Boat, Landing
Craft, Crew Work Boat,
SAR Boat, Airboat.



Project Management

Project Costing,
Material Outsources,
Purchase Order, Project
Supervision and Etc.



Manufacture & Supply

Boat Manufacturer,
Commissioning,
Training and After
Sales Services.



Engineering Consultancy

Naval Architecture,
FEA, CFD, Stability,
Resistance Analysis,
Seakeeping and Etc.



Marine Parts Supply

Wireless Intercom
System for Boat and
Vessel, Marine Engine,
Diesel Outboard & Etc



Repair & Maintenance Works

Vessel Inspection, Hull
Repairs, Maintenance
and Services.



P O W E R C R A F T M A R I N E S D N B H D

TECHNICAL COMMITTEE & PROJECT TEAM YEAR 2021



Yuni Ismail
University of Technology,
Johor, Malaysia.



A. Kutsal Denizmen
Massachusetts Institute of
Technology, USA



Australian Maritime College
& RMIT University,
Australia.



Dr. Anuar Bin Abu Bakar
Newcastle University, UK.



Ir. Baharin Bin Chik
University of Manchester
Institute of Science and
Technology (UMIST), England.



Ir. Dr. Eng. Ahmad Fitriadhy
Hiroshima University, Japan.



Nguyen Huu Tri
Vietnam Maritime University,
Vietnam.

Powercraft Marine Sdn Bhd. Address: No. 2770-B Jln Changkat Permata, Taman Permata
53300 Kuala Lumpur Website: www.powercraftmarine.com.my Email: info@powercraftmarine.com.my

POWERCRAFT has established Technical Committee and Project Team for technical support and business networks.

Technical Committee's Members appointed by company are specialized and experiences in all aspect/field of study which is cover naval architecture, structure engineering, mechanical engineering, electrical and electronics and etc. to provide best services and solution for clients.

Technical Committee's Members are also being represent to Director General for related company business activity in his region, which is include project negotiation, material outsourcing and others, thus, it will make sure all process being smooth and the best solution provided by company to clients.



MANAGEMENT STRUCTURE

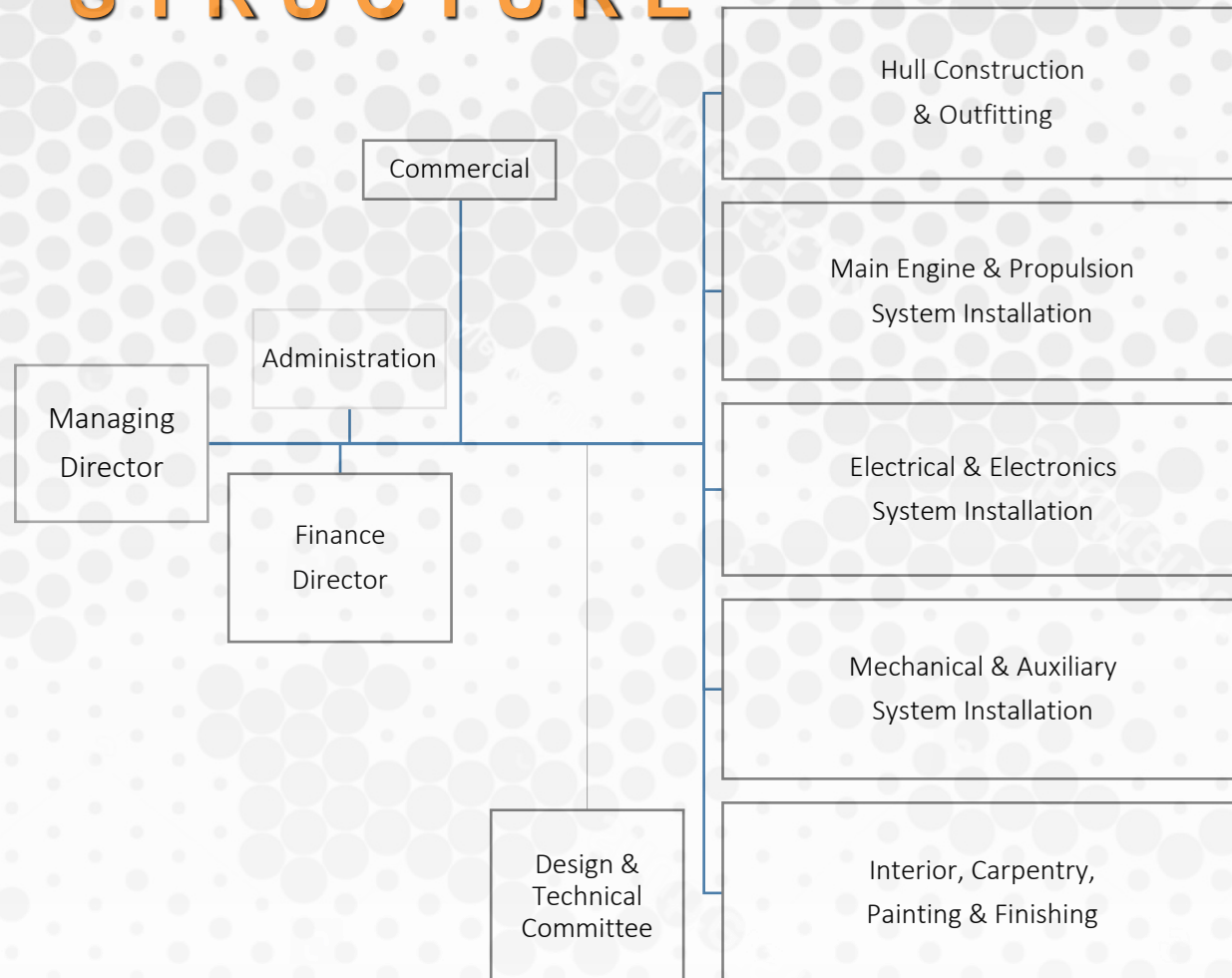
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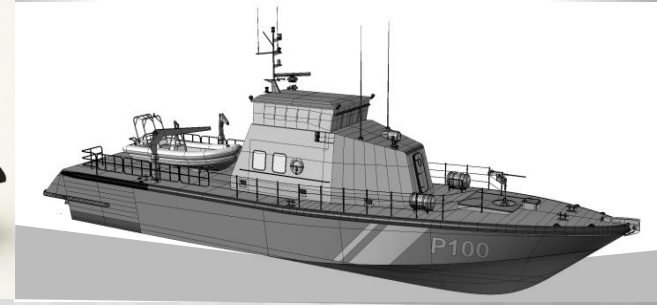
The Company has an absolute commitment to its products, its employees and to the community.



Boat Design - Manufacture Package

P O W E R C R A F T M A R I N E S D N B H D

- ✓ **100% IN-HOUSE DESIGN** by POWERCRAFT.
- ✓ **BOAT & VESSEL Up to 40M.**
- ✓ **AIRBOATS – All Types.**
- ✓ **PRODUCTION – Collaborate with Local Shipyards in Malaysia.**



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P O W E R C R A F T M A R I N E S D N B H D

DESIGN CAPABILITIES

BOAT DESIGN & MATERIAL PACKAGE

Licensed Design Software



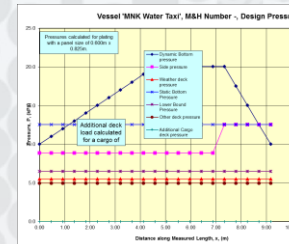
POWERCRAFT employs degree-qualified ship design professionals on staff. Design and drawings presented and produced using Rhino 3D modeling, V-Ray, Flamingo NXT and other software for accuracy and customer's satisfaction. For an owner interested acquiring a custom-built vessel, both of the following types of design packages will typically be required in order for potential builders to provide accurate and competitive quotations on the project:

A concept design package is intended to establish the basic characteristics of a vessel. These characteristics include the overall proportions, expected displacement, power required to achieve the required speed, interior & exterior arrangements, and general exterior styling of the vessel. POWERCRAFT also provide the owners / operators to design the boats within their budget.

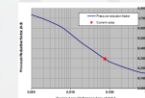
Past Projects – Complete Design and Project Management:

- ❑ *Design & Project Management 13m AL Pax Boat for Pajabat Daerah Mersing, Kerajaan Negeri Johor.*
- ❑ *Design – Concept to Production of 8m Fuel Supply Barge for Operator, ZAICON.*
- ❑ *Design & Project Management One (1) Unit 13m ALC Landing Craft for KOMANDO Malaysia. 2015.*
- ❑ *Design & Project Management One (1) Unit 13m ALC Landing Craft for Pejabat Tanah Daerah, Mersing, Kerajaan Johor Darul Takzim. 2016.*
- ❑ *Design & Project Management Two (2) Unit 13m ALC Landing Craft for Perbadanan Taman Negara Sultan Iskandar, Kerajaan Johor Darul Takzim. 2016.*
- ❑ *Design & Project Management Two (2) Units 16m ALC Landing Craft for His Majesty Sultan of Johor. 2018.*

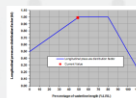
ANALYSIS



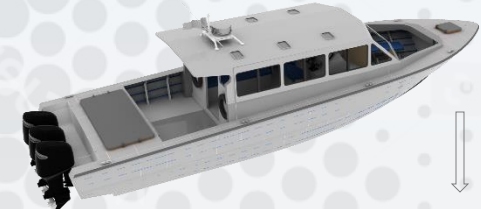
Pressure Reduction Factor for Ratio of Structure Design Area to Impact Reference Area



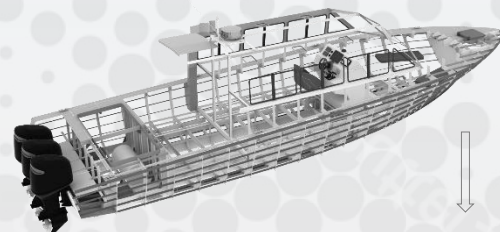
Longitudinal Pressure Distribution Factor for Locations Between Perpendiculars



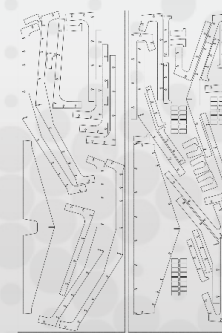
3D DESIGN



MT0 - MEL



PRE-CUT PLATE





POWERCRAFT MARINE SDN BHD

DESIGN SUPPLY POWERCRAFT PROVEN DESIGN

*Pictures of Related Project – Proven Track
Record Design & Project Management.*

POWERCRAFT Military Series

001 Combat Assault Craft	CAC-09m
002 Fast Strike Craft	FSC-10m
003 Special Operation Craft	SOC-10m
004 Fast Troop Craft	FTC-10m
005 Diving Landing Craft	DLC-13m
006 Fast Interceptor Craft	FIC-18m



POWERCRAFT Airboat Series

001 Blue Python Military Airboat	BPA-7m
002 Vipers Patrol Airboat	VPA-8m
003 Rabbit Powercraft Airboat	RPA-8m
004 Compact Powercraft Airboat	CPA-7m
005 Tourism Pax Airboat	TPA-10m



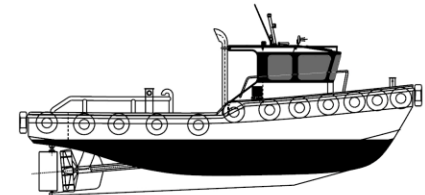
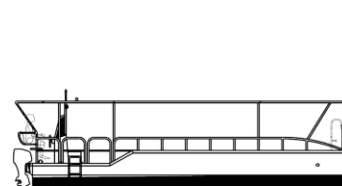
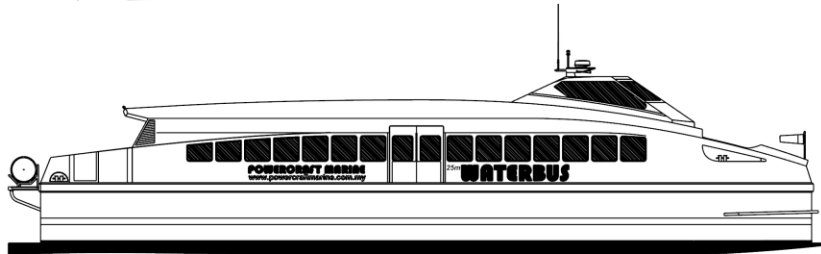
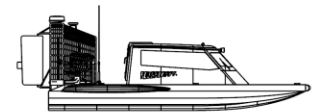
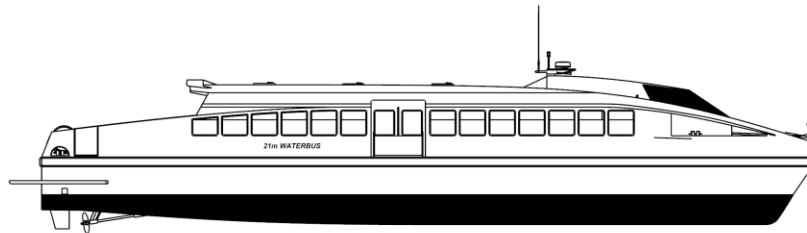
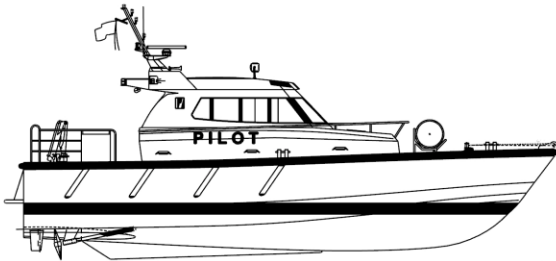
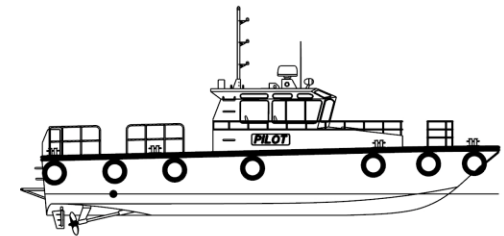
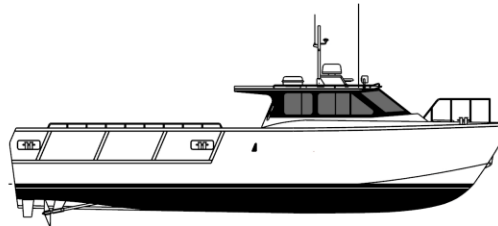
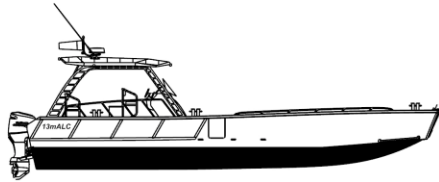
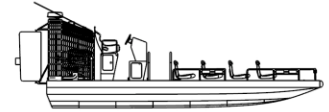
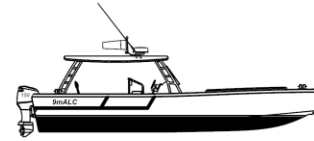
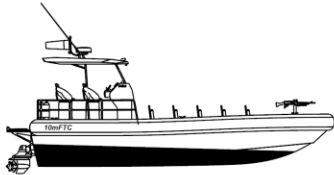
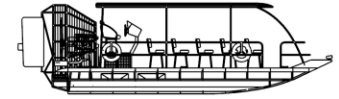
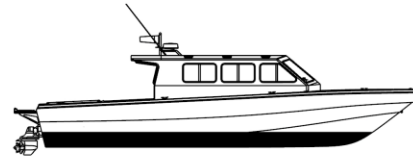
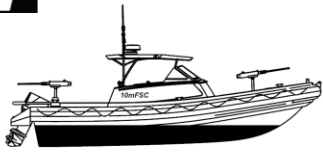
POWERCRAFT Commercial Series

001 General Work Boat	GWB-5m
002 General Work Boat	GWB-8m
003 Steel Mooring Boat	SMB-8m
004 Fuel Supply Boat	FSB-8m
005 Sea Ambulance Boat	SAB-10m
006 Dolphin Water Taxi	DWT-12m
007 Fast Pilot Boat	FPB-12m
008 Al. Passenger Boat	APB-13m
009 Shuttle Pax Boat	SPB-14m
010 Multi-purpose Cat Work Boat	MWB-16m
011 HSV Fast Passenger Ferry	FPF-36m
012 Fast Crew Boat	FCB-23m
013 Express Waterbus	EWB-25m





POWERCRAFT MARINE SDN BHD





TRACK RECORD

Past Projects – Design c/w Project Management:

- ☐ 5.4m Assault Craft Hull#001 – 011 for Tentera Darat Malaysia
- ☐ 6.0m Work Boat Hull#001 for MADOS Holding Enterprise.
- ☐ 7.5m Work Boat Hull#001 – 003 for Pejabat Tanah Daerah, Melaka.
- ☐ 7.6m Crew Transfer Boat Hull #001 for ZIELMARK, Melaka.
- ☐ 8.0m Fuel Supply Boat Hull #001 ZAICON, Terengganu.
- ☐ 7.0m Waster Collector for ZIELMARK, Melaka.
- ☐ 5.0m Tourism Airboat for MMSB.
- ☐ 7.0m BLUE PYTHON Military Airboat for Pasukan Polis Marine, PDRM.
- ☐ 8.0m VIPERS – STYLO I Rescue Airboat for MMSB.
- ☐ 9.0m Tourism Pax Airboat for MMSB.

- ☐ 7.5m ALC Landing Craft Diving (Diesel) for AMANIAGA-Brunei
- ☐ 8.0m ALC Hull #001 for Bakaj, Johor.
- ☐ 8.0m ALC Hull #002 for Bakaj, Johor.
- ☐ 9.0m ALC Hull #001 for Bakaj, Johor.
- ☐ 9.0m ALC Hull #002 for Bakaj, Johor.
- ☐ 9.0m ALC Hull #003 for PDMsg, Johor.

- ☐ 12m AL Pax Boat Hull #001 for MADOS Holding Enterprise.
- ☐ 12m AL Pax Boat Hull #002 for Pajabat Daerah Mersing, Kerajaan Negeri Johor.

- ☐ 13m ALC Landing Craft Hull #001 for His Majesty Sultan of Johor.
- ☐ 13m ALC Landing Craft Hull #002 for KOMANDO Malaysia.
- ☐ 13m ALC Landing Craft Hull #003 for His Majesty Sultan of Johor.
- ☐ 13m ALC Landing Craft Hull #004 for for Pejabat Tanah Daerah, Mersing.
- ☐ 13m ALC Landing Craft Hull #005 for Taman Laut Sultan Iskandar, PTNJ.
- ☐ 13m ALC Landing Craft Hull #006 for Taman Laut Sultan Iskandar, PTNJ.

- ☐ 15m MAC Medium Assault Craft for Malaysan Commando
- ☐ 16m ALC Landing Craft Hull #001 His Majesty Sultan of Johor
- ☐ 16m ALC Landing Craft Hull #002 His Majesty Sultan of Johor
- ☐ 5.4m MPA Maritim Patrol Airboat for 83mOPV Destini Group
- Design, Fabrication, Commissioning and After Sales Services.

Past Projects – Repair, Refit, Repowering and Conversion:

- ☐ 10m Penyengat Repowering and Structure Modification Design for Wira Maju, Perlis.
- ☐ 14.0m Pilot Boat – Inboard to Outboard Conversion and Structure Modification Design for Private Owner, Kelantan.
- ☐ 36.0m KD Kepah RMN Conversion Design Proposal for Preston Shipyard.
- ☐ 36.0m Frigate – Design Improvement and Realistic Rendering for PPCI.

Past Projects –Design for Production:

- ☐ 12m Fast Interceptor Strike Craft for LeisureCat Australia/Malaysia
Hull #001 - #015 has been Successful Constructed and Delivered.
- ☐ 12m Patrol Boat Hull #001 Full Cabin for LeisureCat Australia/Malaysia.

Analysis Consultancy for Ship Under Operation:

- ☐ CFD-Motion Seasickness Analysis MSI for Ship “INSPIRASI 1”, for Operator Lantana Services, Miri.
- ☐ CFD-Motion Seasickness Analysis MSI for for Ship “ALEEYA”, for Operator MY Ship Management, Brunei.
- ☐ And More ...

Note:

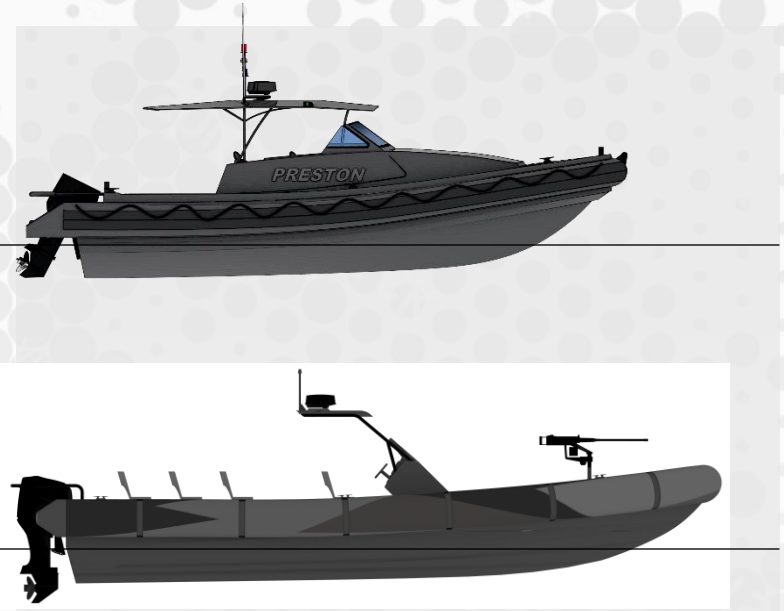
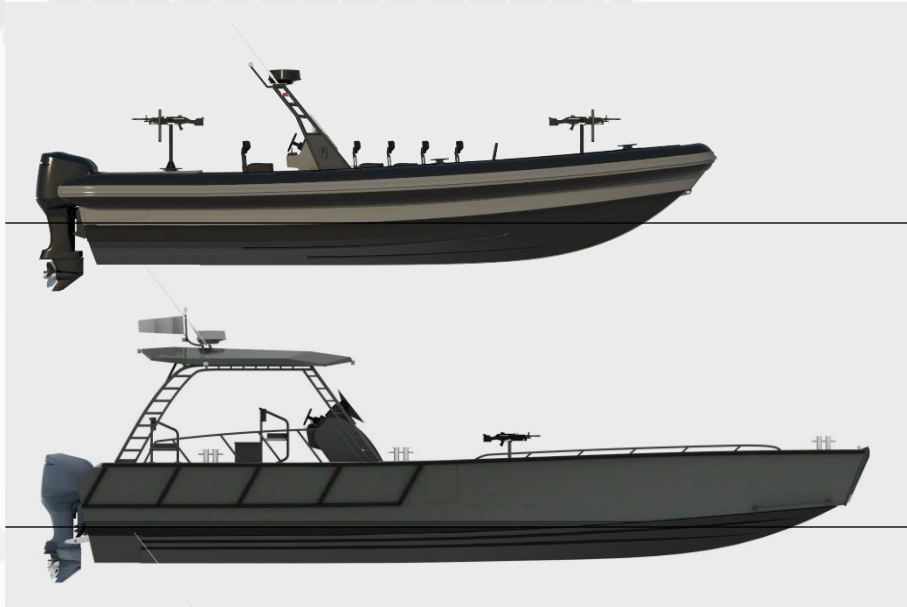
1. Design – Scope of Works include Conceptual Design. Preliminary Design. Functioning and System Design, Production Details Drawing, Pre-cut and Nesting and Etc.
2. Project Management – Contract Preparation between Customer and Shipyard, Project Costing, Production Scheduling, Material Outsourcing (RFQ/PO/DO), Materials/ Equipment arrangement from factory to shipyard, Project Supervision, Quality Control, Technical Support, Fat/Hat/SAT, Owners Manual Preparation, Project Meeting and Etc.
3. Fabrication / Production – Hull Construction, Main Engine Installation, Electrical Installation, Outfitting, Commissioning and Seatrial.



P O W E R C R A F T M A R I N E S D N B H D

MILITARY SERIES

POWERCRAFT PRODUCT RANGE



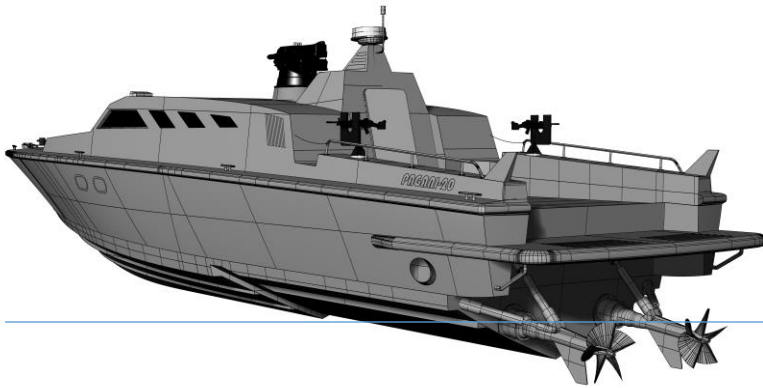
Series of
Military Boats
POWERCRAFT®

Shown Proven boat. Currently operate by Malaysian KOMANDO.

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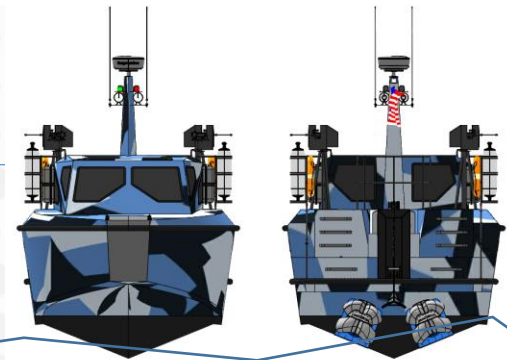
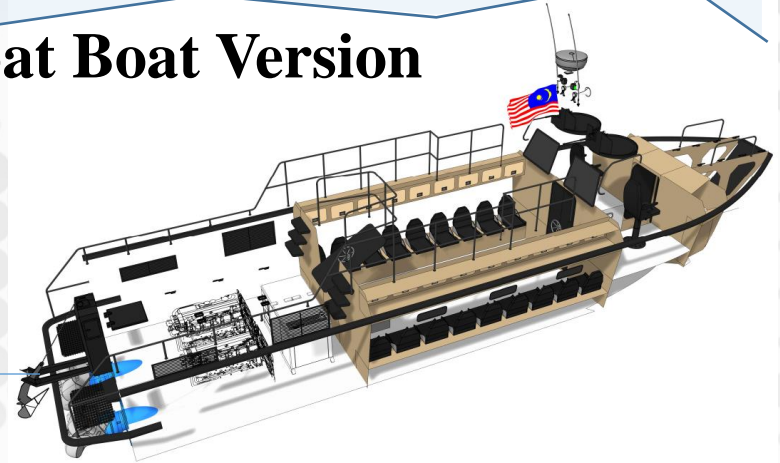


Naval Interceptor **PAGANI-20i**



MILITARY SERIES *POWERCRAFT PRODUCT RANGE*

Combat Boat Version



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Please contact Powercraft for More Design and Details

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53300 Kuala Lumpur Website: www.powercraftmarine.com.my Email: info@powercraftmarine.com.my



Fast Interceptor Strike Craft

Sea Stalker

PARA-MILITARY POWERCRAFT PRODUCT RANGE

- Length Overall: 17.50m
- Overall Beam: 4.40m
- Weight (@ Lighship): 19.6 tonnes
- Weight (@ Full-load): 23.0 tonnes
- Fuel Capacity: 2,500 litres
- Crew + Officer: 4+10 personnel
- Fresh Water Capacity: 300 litres
- Speed – Maximum: 60 knots @ Full Load
- Range: 300 + nautical miles
- Endurance: 5.0 hours
- Vessel Type: Single-Stepped Monohull
- Hull & Superstructure: DIAB Composite
- Main Engine: 2 x MTU 10V2000 M94
- Power: 1,600 hp @ 2,450 rpm
- Drive system: ASD 14 Surface Drives
- Propellers: NiBrAl, Rolla propeller
- Generator: Diesel generator, 13kW, 50Hz
- Interior: Composite Lightweight panels





MILITARY SERIES

POWERCRAFT® 13m High Speed Landing Craft
for MALAYSIAN KOMANDO



SUCCESSFUL PROJECT - 6 Units Successfully Delivered

Design Discussion



Production Supervision





P O W E R C R A F T M A R I N E S D N B H D

POWERCRAFT® Commercial Series

COMMERCIAL SERIES

POWERCRAFT PRODUCT RANGE





P O W E R C R A F T M A R I N E S D N B H D

16m HIGH-SPEED DIVING BOAT

**2 Units x 16m High Speed Landing Craft for
HIS MAJESTY SULTAN IBRAHIM, JOHOR**



Design and Project Management by Powercraft Marine, Malaysia.



P O W E R C R A F T M A R I N E S D N B H D

100% In-house Airboat Design – 1st Airboat Designer in Asia and The ONLY ONE in Malaysia.

AIRBOAT SERIES

POWERCRAFT® PRODUCT RANGE



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100% In-house Airboat Design – Cabin Protected by Bullet Proof Level III – 1st Military Airboat in the World.



BLUE PYTHON Military Airboat

DELIVERED

Introduction & Specification



The BLUE PYTHON Military Airboat is the first military airboat developed in Malaysia. The purpose mainly for anti-smuggling and river patrolling.

No	Particular	BLUE PYTHON
01	Category	Military
02	Top Design	Cabin
03	Hull Bottom Design	Convex
04	Airboat Length Overall	8.00 m (Hull Only)
05	Airboat Beam	2.85 m
06	Structure Height	2.85 m
07	Main Engine	LSA 6.2L SuperCharged
08	Power	550 hp @ 5800 RPM
09	Speed (Max)	32 knots @ 5600 RPM
10	Propeller Type	WWP's Whisper Tip EX 4 bladed
11	Propeller Rotation	1 Way Rotation
12	Propeller Material	Carbon Fibre
13	Complement	6 Officers
14	NavCom	GARMIN System
15	Hull Construction	Alum. Alloy



P O W E R C R A F T M A R I N E S D N B H D

PRODUCTION WORKS

NEW BOAT/SHIP PRODUCTION

PRODUCTION SUPPORT

POWERCRAFT's employees have substantial experience in construction of Aluminum and composite vessels as well as components, giving the company the capacity to meet its customer's needs and production support for Customer based on project basis.

POWERCRAFT's trained staff is capable of the installation and commissioning of most associated systems, including piping, engineering, electrical and electronics. Where necessary, back-up support is provided by specialist contractors by local and international.

To ensure the highest standard of internal outfitting, the Company uses well trained staff for the main carpentry work. With access to the world's most modern outfitting materials, combined with local craftsmanship, Powercraft Marine products are unrivalled in the region.

POWERCRAFT have production Team complete with machine and Tools for Hull Aluminium Construction and repair works.



Project Management

Project Costing,
Material Outsources,
Purchase Order, Project
Man Power Supply
Quality Control
Class Society Liaison
Supervision and Etc.



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P O W E R C R A F T M A R I N E S D N B H D

Design, Manufacture and After Sales Maintenance for 3 Units Airboats 83m Offshore Patrol Vessel - MMEA

SUCCESSFUL PROJECT

1st MARITIM Patrol Airboat - BLACK MAMBA



THHE DESTINI SDN BHD (1188632-X)
No. 2, Jalan Sungai Chandong 13, Pulau Indah Industrial Park,
42920 Pulau Indah, Selangor Darul Ehsan

DESTINI



OPPO F5
Kuala Lumpur, Malaysia
By Powercraft Marine Sdn Bhd



OPPO F5
Port Klang
By Powercraft Marine Sdn Bhd



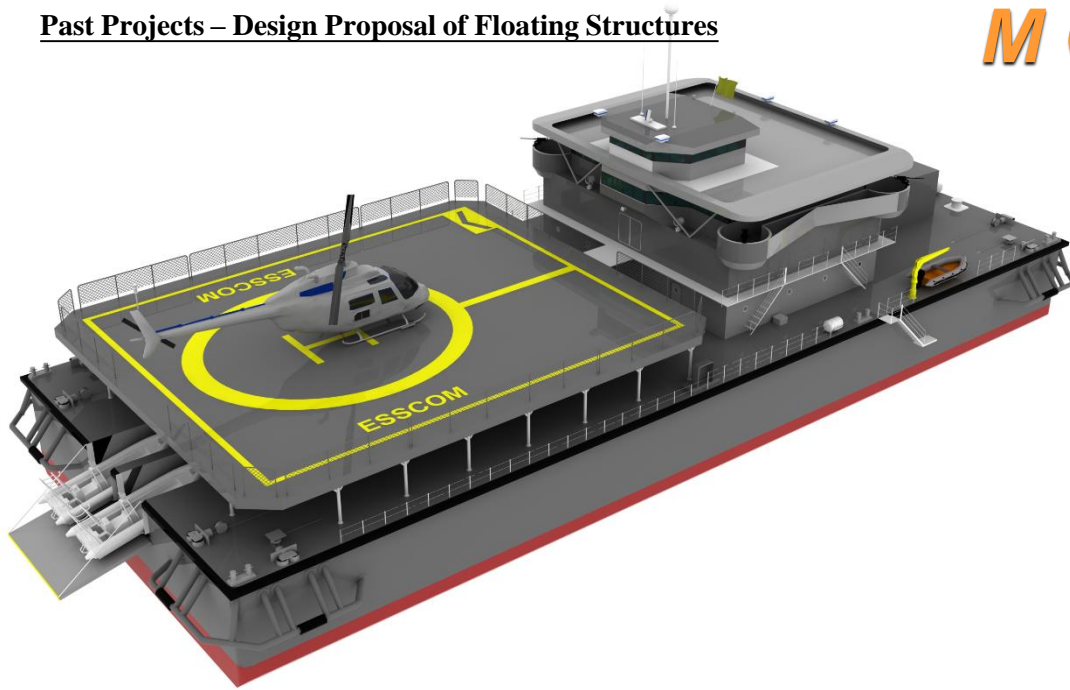
OPPO F5
Port Klang
By Powercraft Marine Sdn Bhd



OPPO F5
Pelabuhan Klang
By Powercraft Marine Sdn Bhd



Past Projects – Design Proposal of Floating Structures

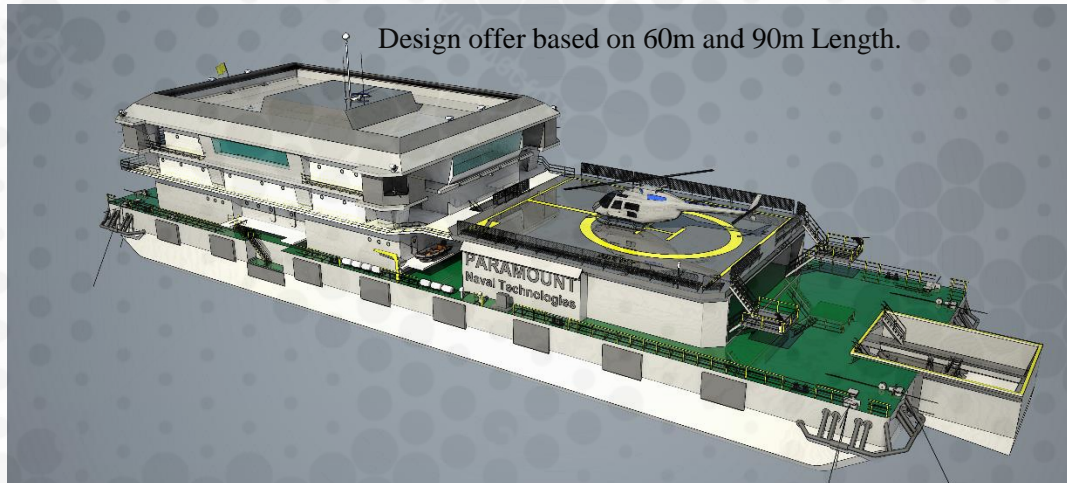


MODULE SERIES
POWERCRAFT® PRODUCT RANGE

Past Projects – Design Proposal



Design offer based on 60m and 90m Length.





POWERCRAFT MARINE SDN BHD

ENGINEERING CONSULTANCY

DETAIL ANALYSIS AND FEASIBILITY STUDIES

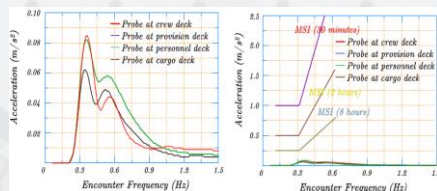
Our design capabilities extend to detail analysis and can provide as marine consultancy basis as per client request which include:

- ☐ Route Analysis
- ☐ Through life cost analysis
- ☐ Seakeeping Analysis
- ☐ Environmental Study
- ☐ Maneuverability and turnaround
- ☐ Functional Specification
- ☐ Performance Analysis
- ☐ Fuel Consumption
- ☐ Visualization / Animation
- ☐ Naval Architecture
- ☐ Sound & Vibration
- ☐ Structural Engineering
- ☐ Mechanical Engineering
- ☐ FEA of Marine Structures
- ☐ Electrical & Electronics System Design
- ☐ Material Selection & Review
- ☐ Kit Sets, Material Procurement & Supply
- ☐ Vessel Modifications & Conversion Study
- ☐ Motion Seasickness Incidence Analysis
- ☐ Computational Fluids Dynamic CFD
- ☐ Jacket Launching

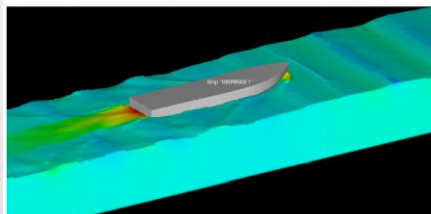


Analysis Consultancy

Naval Architecture,
FEA, CFD, Stability,
Resistance Analysis,
Seakeeping and Etc.



Prediction of MSI of ship "INSPIRASI 1" (loading condition 5, cruise speed of 12 knots, sea-state 3 associated with Pierson-Moskowitz wave spectrum)



Snapshot of seakeeping performance of ship "INSPIRASI 1" loading condition 5, cruise speed of 10 knots, sea-state 3 associated with Pierson-Moskowitz wave spectrum)



Figure 9. Deformation at 1m wave height (Sagging) with a maximum deflection of 25.2mm



Area of Studies - Ship/Boat * Vessel * FPSO * Jacket * Shipyard Layout * Slipways * Floating Dock & Jetties * Navigation Buoys * Boat Trailer

Contact Details

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Authorize Dealer

Setcom

Marine Communications
Headsets and Intercom Systems

YAKAI

YAKAI Outboard Diesel Engine

NAVALTEK

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High Speed Craft Design Firm