



protankgrup

LAGITUNDUKLAGIBERISI

Engineered Tanks &
Aviation Refuelling Systems

protankgrup.com



Protankgrup is a grouping of specialist boutique companies. Our core competencies are in fluid handling, offshore containerisations, fluid packaging, aviation fuelling, fluid measurement, control and simulations.

Our primary products are offshore tanks and containers, and the fluid handling and process systems that accompany those tanks. In offshore and naval aviation's, we design and build aviation fuelling packages used on board FPSOs, offshore platforms, and warships.

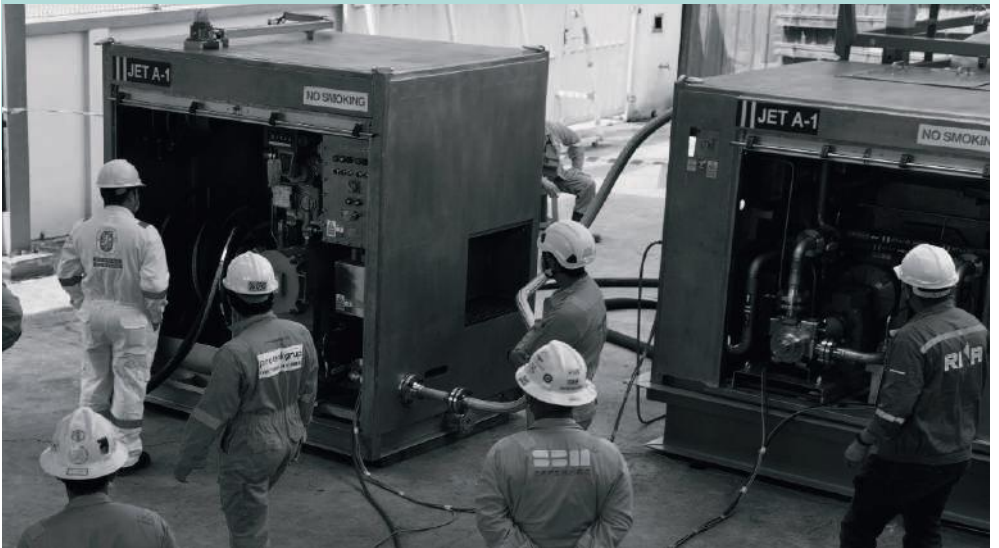
With in-house design and prototyping capabilities, our time to market is short. Our flexibility to customise sets us apart from our competitors. We offer both bespoke as well as standard manufactured products.

With offshore operations moving further onwards deeper waters, Safety and Quality matters, and becoming more challenging. At Protankgrup SAFETY and Quality is never compromised.

SPEED, FLEXIBILITY, SAFETY, QUALITY



Our Clients



IMDG Code

Can my cargo be transported by ship safely?

IMDG Certified tanks are used for the safe transport and storage of a wide range of liquids, including chemicals for oil and gas processes, drilling processes, waste liquids and aviation fuel.

When a tank container journey includes sea passage, it must meet the International Maritime Dangerous Goods Code (the IMDG Code) and be marked as such prior to being loaded onto the vessel

Before boarding a vessel, all cargoes must meet the following declaration:

- ✓ Classification
- ✓ Marking
- ✓ Packaging *
- ✓ Labelling
- ✓ Placarding

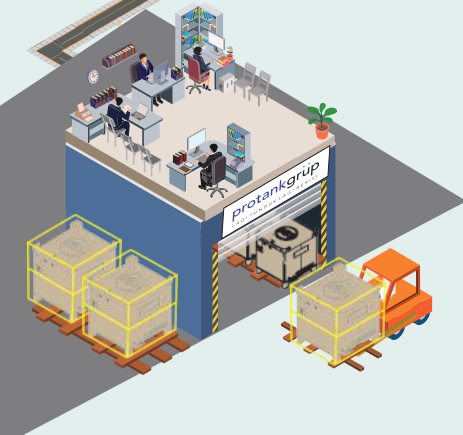


Manufacturing of IMDG certified tanks with Protankgrup

At protankgrup, we have the know how and the experience of Design, Construct and Test of IMDG tanks.

THE DESIGN PROCESS

- Reviewing the MSDS to ensure selection criteria
- ↓
- Mechanical Design with Solidworks and calculation
- ↓
- Pressure vessel that meets requirement per International Standards
- ↓
- Design review with IMDG competent authority and 3rd party classification society – per the marine requirement
- ↓
- Ensuring sub components meet with IMDG code and other offshore requirements
- ↓
- Variation of existing designs to meet latest requirement



Our facility is also capable in conducting testing capabilities in order to meet with the IMDG codes requirements:

- ✓ Hydrostatic Test
- ✓ Leak Test
- ✓ Dye Penetrant Testing
- ✓ Magnetic Particle Testing
- ✓ Ultrasonic Testing
- ✓ Radiography
- ✓ Positive Material Identification
- ✓ Paint Test
- ✓ Holiday Test



Our project management team & construction team are well experienced to ensure a proper record keeping & document review & verification per the latest ISO 9001:2015.

*The packaging will be verified by the competent authority. Different chemical has a different packaging requirement

Offshore Containers



Our standard TYPE APPROVED designs are as per the following:

- 6ft Container
- 10ft Container
- 20ft Container
- IMDG certified Lifting Frames for Totetanks
- DNV Certified Lifting Frames for Totetanks
- 2900, 4000, 4800 litre Offshore T11 Tanks
- 8000 Litre Offshore Tanks
- 20ft Offshore Lifting Frames
- Customized Skids for Generator Sets and Pumps

Lifting safety is top most in offshore operations. Beyond tanks and containers, equipment such as pumps, genera- tor sets or filtration system will now require an approved lifting structure to ensure that these units can be lift safely from the Supply Vessels to the Platform.

The primary standards applicable to Offshore Container/Offshore Structure design and construction to address LIFTING SAFETY are DNV 2.7-1 and EN 12079.

Protank manufactures speacialzed DNV structure for the Oil and Gas Industry. All of our containers are certified to DNV 2.7-1 Standards which also complies to IMO MSC/Circ. 860 and the European Standards, EN 12079.



We also do customized DNV lifting structure fabrication based on the client required size or fittings.



Tank Rentals

Asset Management



We do both “hire and forget” and “all in rental services”. With all in rental services, your tanks will be managed from A to Z. With one purchase order, you can focus on your chemical, and leave the TANK-NICALITIES to us...

Personalized Services



At Tankquip, we believe in “Global Reach, Local Touch” of which on each locations, we will have a dedicated personnel to ensure the turnaround time to be as fast as possible. We strive to complete each assignments within 3 hours. Period.

Bespoke inspection Solutions



DNV is the common standard for offshore container, but each platform operator has its own modus on inspection prior to clearance at the jetty. From MPI to load test and from IMDG 2,5 years inspection to spark test on the acid lined tanks. We will able to get these units inspected in accordance to the best in the world standards/requirement.

Slings and Shackles



Each of these offshore tanks has its own currency, without its birth certificate, it will be useless. Due to the stringent requirements, it its not easy to managed slings as it is the most loose item of the offshore tanks, yet the most integral. Especially the shackles, it must have the exact serial number as what was shown on the birth certificate, otherwise, the captain of the OSVs will not even bother picking it up at the jetty.

Repair & Services



Most of the tanks are designed and manufactured by Protank. We have control over repair or any hot work requirement. Working together with DNV, we can rectify any worn-out units on various locations.

Cleaning Services



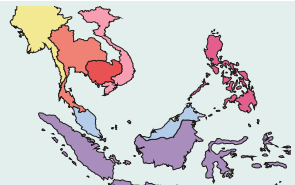
We do assist our client and provide decanting services from any remnants of the cargos. These excess fluids will be returned to them and cleaning proceeds will follow

Spareparts



All of the spare parts of the offshore tanks will be available on site at our bases listed Our team on locations will assist the replacement on your behalf.

Where we are?



We operate in Busan, Songkhla, Jakarta, Labuan, Kemaman, Ranong, Balikpapan, Vung Tau, Loyang and Tuas and our tanks are being managed independently as far as Tianjin and Kakinada in the East and Aberdeen in the West.

Bespoke Solutions

At protankgrup, offers both off-the shelf type approved IMDG offshore tanks solutions and bespoke fabrication of tanks and complex skids. All while in compliance to **DNV 2.7-1, EN, IMDG, RID, ADR, TIR.**



- Diesel Storage Tanks
- Potable Water Tanks
- Sump Tanks
- Skimmer Tanks
- Lab Drain Tank
- Open Drain Tank



Standard design (off-the shelf) solutions

- DNV 2.7-1 Lifting Frame
- T11 IMDG Tank
- UN31A IMDG Tank
- Helicopter Refueling System



Bespoke solutions

- IMDG requirements (up to T75 Cryogenic solutions)
- DNV 2.7-1 Offshore Containers
- Rectangular tanks or ATM tanks
- Pressure Vessels
- Helicopter Refueling Systems
- Process Skid Systems
- Programmable Logic Controllers integration (PLC)



Aviation Refuelling Systems

Offshore Platform / FPSO / Naval Platform of the World

As an ABS approved manufacturer, we provide standard system and customized solution that cater to the specific helicopter refueling requirements of our clients. The HRS is suitable for both newly build and existing naval or oil & gas assets.



We offer complete helicopter refueling system which includes tank laydown skid, static storage tank, transportable tank, pump unit and dispenser unit - all designed to meet the latest standards and regulations.

Classifications, Regulations & Standards

- BV, DNV, ABS, LR, NK, RINA
- NORSOK/CAP 437/USCG
- IMDG, DNV 2.7-1
- EMC, Mil-Spec, STANAG 3847, Shock Vibration
- EI 1581



Ground Refuelling

We in Protank are able to custom design and manufacture refueling module with and without prime mover. Our design philosophy consist of plug & play concept makes our product easier to ship anywhere in the world and to remote locations.



- Light refuelling module
- Compact & Compatible with wide range of prime movers & multirole vehicle
- Minimal Tie Ins (Power, fuel, control & instrumentation & pneumatic



Naval Aviation & HIFR



Protank HIFR Assembly is fully compliant with STANAG 3847. This is a low pressure loss assembly which is designed for ship to helicopter refueling. The assembly is manufacture in facility in Malaysia, with the option of two end configuration;

- 1) HRS underwing nozzle
- 2) Dedicated deck plug connection



System Rental

We offer helicopter refueling system that can be rented either as a complete system or as stand-alone unit. Our rental fleet is fully compliant with CAP 437 and ABS regulations.

- Transportable Tank
- Dispenser Unit
- Pump Unit

Our system is available for lease on a flexible basis, ranging from short to long-term periods.



Ground & Offshore Aviation Service

Inspection

Our services include carrying out regular inspections of offshore helicopter refueling system and helideck to comply with the UK CAA CAP 437 & CAAM CAD 1406.

Training

Protank offers theoretical and practical training courses that are based on our extensive experience and knowledge of offshore regulations and standards.

Our training objective is to provide operators with all the necessary competencies to safely and effectively deliver clean fuel to helicopter.



Comparison Protankgrüp Helicopter Refuelling System with Other Manufacturer

FEATURES	PROTANK HRS	OTHER MANUFACTURES	SIGNIFICANCE
COMPLIANCES			
Naval and Military Codes and Standard	STANAG (NATO), U.S Mil Spec, Def Stan, IRS		
Energy Institute	API / EI 1581 6Th Edition (specification and qualification procedures for aviation jet fuel / separators).	Most of the manufacturers focusing on either military or non-Military.	Essential for safety and regulations
Iso Compliance	(ISO 6954:2000 (hull vibration) & ISO 10816 (mechanical vibration)	Protank covering both segments.	
Civil Aviation Authority	CAP 437 (Offshore Helicopter Landing Area)		
Ships Classification	LR, BV, NK, ABS		
CUSTOMIZATION			
Clients Operational Needs	• Ability to customise as per client operational requirement.		Flexibility
Retrofit/Upgradeability	• Design for retrofit.	Offer standard products/ limited customisation	
Space and Weight	• Capable of upgrading existing system / add on new capability. • Design to fit (limited space)		
SYSTEM SOFTWARE			
System Software	Open-Source Software • Clients are not restricted to get support from Protank in terms of software. In country engineer (PLC Knowledge) should be able to support. • Obsolescence management. Not limited to manufacturer.	• Close-Source Software • Clients are restricted to get support from manufacturer. • Obsolescence management. Limited to manufacturer	Accessibility
AFTER SALES SUPPORT			
Spare Parts Availability/ Obsolescence Management	•Commercial off the shelf equipment. Protank system consist of integration of reliable and well-known equipment in the industry.		Mitigating the risk associated with the obsolescence of products
Location	• ASEAN based company • Protank has agents in Phillipine, South Korea, India, Pakistan, Indonesia and Singapore. • Strong business presence in Southeast Asia region. • During pandemic, Protank capable to mobilize personnel for overseas project (with Taiwan Navy and Indonesia Navy) due to agents' presence.	Developed in-house equipment, will lead to availability and price control by the manufacturer Military helicopter refuelling system manufacturers are usually from Europe, Western or local (shipyard's country).	
PRODUCTS			
Weight (Standard Model)	• 1718 kg	• 1985 kg	• Lighter equipment can help improve performance of the vessel • Convenience and Cost Effective • Less space
Dimension Standard Model	• Pump and filtration skid 1600 x 1340 x 1600(H) mm • Dispensing skid 1600 x 1500 x 1800(H) mm	• Pump and filtration skid 2006 x 1190 x 1736 (H) mm • Dispensing skid 1500 x 1400 x 1788 (H) mm	
System Package	• Protank also manufacturer of tanks. • Offer complete package including tank if required	• Only produce helicopter refuelling system. Tank package by tank company.	
HIFR	• 1718 kg • Protank developed own HIFR. STANAG compliant. • HIFR can be added to the existing system.	• Not all manufacturers develop their own HIFR	• Complete package of Helicopter Refuelling System including HIFR.

In Aviation, Compliance is Everything!

Products

- Small foot prints
- Common Maintenance space and Operation space
- Integrated Lifting Lugs
- No extrusions and appendages
- Ready to install mounting
- Dry weight under 1 tonne
- Ease of Interface with Platform Supply
- Complete package including tank
- Instrumentation / Control may be integrated to Integrated Platform Management System (IPMS)



Compliance

Naval and Military Codes and Standard Energy Institute ISO Compliance Civil Aviation Authority Ships Classification



Conventional Solutions

Most of the manufacturers focusing on either military or non-Military.

Protank covering both segments.

Conventional Solutions

Only produce helicopter refuelling system.
Tank package by tank company.

After Market Supports

- Design & manufacturing in ASEAN with world wide connectivity
- Established distribution support network in China, Korea, ASEAN, South America & Europe
- 24/7 support desk
- Mobility of technical team to provide technical support both domestically & internationally
- Commercial off the shelf (COTS) aviation consumable & equipment
- Operation & technical training provided
- Annual Recertification & Inspection

Conventional Solutions

Non COTS equipment, will lead to availability and price control by the manufacturer

Military helicopter refuelling system manufacturers are usually from Europe, Western or local (shipyard's country).



HIFR

- Protank developed own HIFR. STANAG compliant.
- HIFR can be added to the existing system.

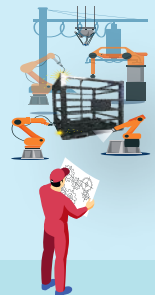


Conventional Solutions

Not all manufacturers develop their own HIFR

Customization

- Ability to customise as per client operational requirement.
- Design for retrofit.
- Capable of upgrading existing system / add on new capability.
- Design to fit (limited space)



Conventional Solutions

• Offer standard products/ limited customisation

System Software

Open-Source Software

- Clients are not restricted to get support from Protank in terms of software. In country engineer (PLC Knowledge) should be able to support.
- Obsolescence management. Not limited to manufacturer.

Conventional Solutions

- Close-Source Software
- Clients are restricted to get support from manufacturer.
- Obsolescence management. Limited to manufacturer



Offshore Tanks

For Sale & Rental

Approvals

- ✓ DNV 2.7-1 ✓ ADR ✓ RID
 - ✓ IMDG Code (T7, T11, T14, T50, T75)
 - ✓ EN ISO10855-142
 - ✓ IMO Circular MSC/Circ. 860 "Guidelines for the Approval of Offshore Containers Handled in Open Seas".
- UN 31A: permits the shipment of flammable and combustible liquids authorized by Title 49 CFR for
- ✓ land and sea transportation of hazardous liquids material of packaging groups II and III

1000 & 2000 Litre Portable Tanks



2900, 4000 & 4800 Litre IMDG T11 Tanks



8000 Litre IMDG T11 Tanks



Portable Jet Fuel Tank



Gas Rack



Available for
12 & 16
Cylinders

Customised
Manifold for
Various Gases

Offshore Service Containers



The Offshore service container can be customised to suits the operational usage. It can either be a standard dry cargo container or it can be customised into a me a small workshop complete with electrical appliances

8000 Litre IMDG T14 Acid Tank



ASME pressure vessel and lined with Epoxy Flakes or LDPE lined to ensure safe transportation of corrosive cargoes. Equipment is design & build as per the IMDG code and rated at T14.

T50 High Pressure Offshore Tank for LPG or Cryogenic Application



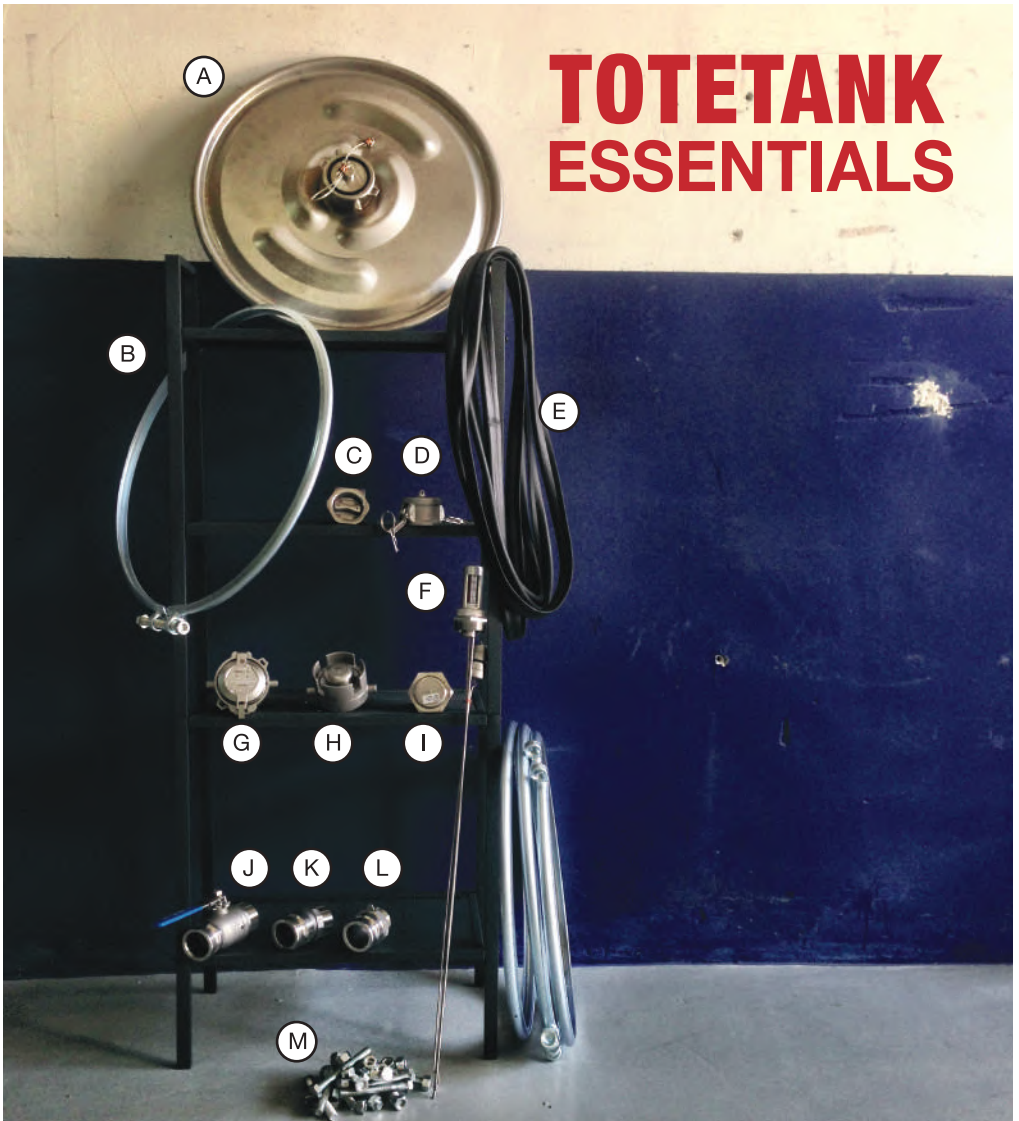
1000 & 2000 Litre Portable Offshore Acid Poly Tank



Stainless Steel IBC / Totetanks



TOTETANK ESSENTIALS



A) 22" Drum Cover

B) 22" Clamp Ring

C) 2" Bung Plug

D) Dust Cap

E) 22" Gasket

F) At - a - Glance Gauge

G) 5:1 Flip Top Vent

H) 5:1 Vent

I) 3:1 Pressure Vacuum Vent

J) 2" Ball Valve with 15-degree
offset angle.

K) 2" Quick Connect with
15-degree offset angle.

L) 2" Quick Connect

M) Nuts & Bolts

SSAIPDETM

S*peed*

S*harp*

A*ccountability*

I*ntegrity*

P*recision & Accuracy*

D*ocumentary Evidence*

E*xcellent Aftermarket*

***Our business is integrity,
but we do not trade it.***

protankgrüp

LAGI TUNDUK LAGI BERISI

Contact Us For Your Liquid Handling Needs

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