











Department of Industry, Innovation and Science

Measurement Institute



#### TANK FARM SCENARIO

#### **Tank Farms**

It doesn't matter what the nature of the project is, you need fuel and lubricants (herein referred to as hydrocarbons) to run your project.

**FLEXIBLE...** There are peaks and troughs during the project timetable that sees spikes in demand. We understand that you need a flexible solution to your site hydrocarbons storage and dispensing needs.

**PRACTICAL...**You need a rapidly deployable, scalable, environmentally compliant and practical hydrocarbons facility to support the job.

**FINANCE...**Project finances may dictate that hiring the facility may be more financially viable. Perhaps a buyback offer on the facility helps with the split of assets once the project draws to a close or the joint venture ceases. We offer a range of innovative finance solutions to support your specific project needs.

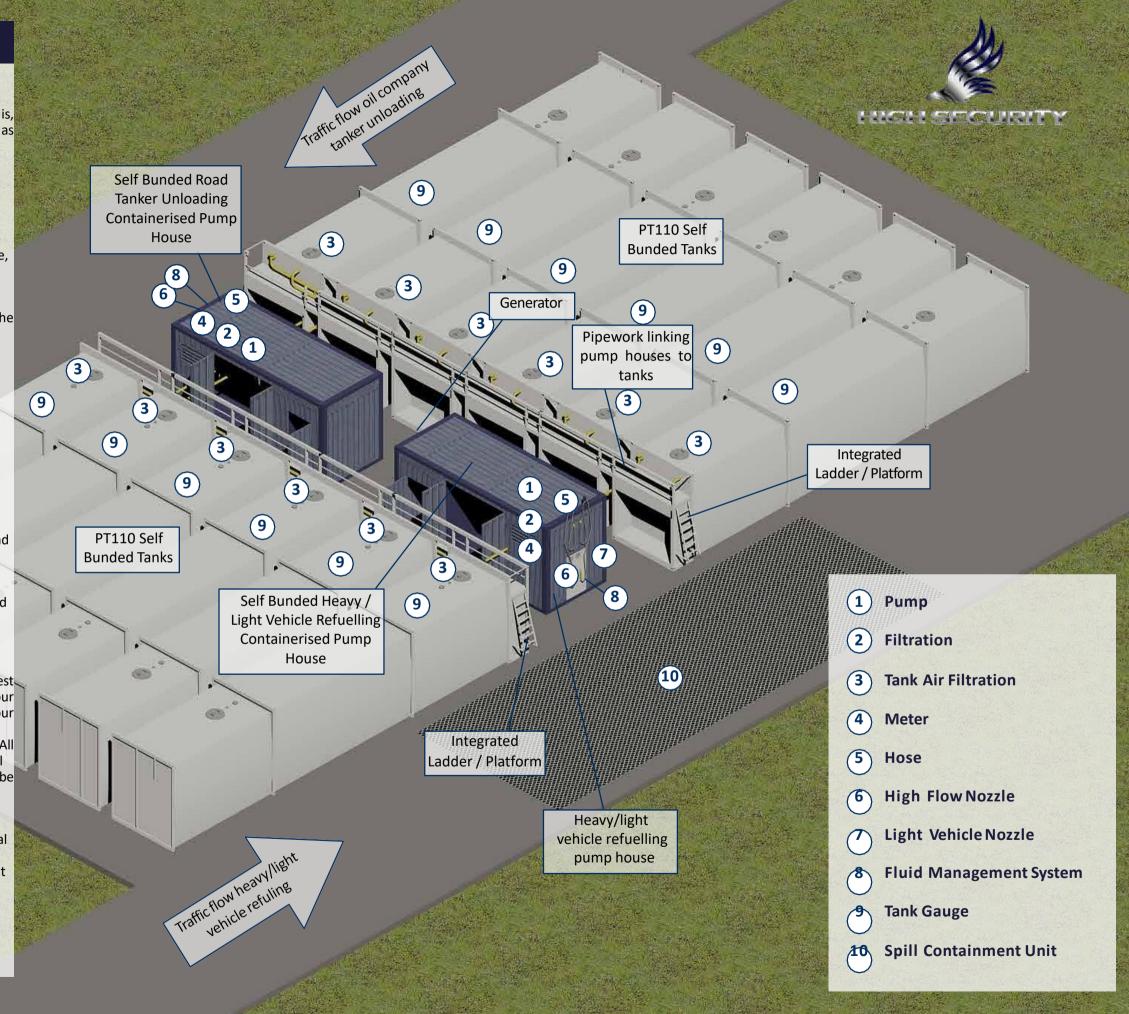
**SCALABLE...**Perhaps the facility needs to be scaled down to meet the permanent needs of the site moving forward. Tank Farms can be easily scaled up or down to meet the needs of your project hydrocarbons off take.

**MODULAR...**We have developed a modular, plug and play hydrocarbons solution to support your project site.

**OPTIONS...**We can offer a range of larger centralised options and indeed a network of smaller decentralised solutions tailored to the needs of your project.

LITTLE INFRASTRUCTURE...There is no need to invest in expensive permanent infrastructure to support our equipment. Whilst always nice to have, our equipment does not require expensive concrete footings and associated infrastructure. All we need you to provide is a suitably compacted, well drained, level site. Our Tank Farms are designed to be deployed in a range of conditions.

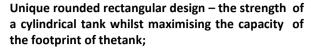
RAPID DEPLOYMENT...Our Tank Farms are quick to deploy. We hold tanks in stock throughout our global operations. We can kick off your project with equipment within literally a few days, this equipment can then be scaled up to meet the needs of your project as it gears up to full construction. Traditional Tank Farms can take up to 6 months to build. Don't wait around, specify a your Tank Farm today.



#### Not all Self Bunded Tanks are the same!

#### The roof is double wrapped and curved;

- The PT Series tank range is double wrapped around the full circumference of the tank;
- As we provide a double wrapped roof, we are able to take the safe fill level of the tank to 96.5% of the stated capacity. This higher capacity design allows us to further maximise the storage capacity of the tank's footprint;
- The roof of the tank is curved, this prevents the buildup of water, snow, sand and other contaminants on the roof of the tank. Any presence of these contaminates on the roof of the tank increases the risk of contamination of the fuel being held within the tank.



- The unique tank design that combines the strength of a cylindrical tank but in turn maximises the storage capacity of the footprint;
- Our rounded rectangular design does not require the internal bracing that rectangular tanks require to provide strength;
- The inherent strength of the PT Series design requires less steel in construction, this results in a lighter, stronger, more robust tank for your site.



#### Full Height, Fully Bunded, Lockable Integrated Pump Bay Housing;

- PT Series tanks feature a very generous, full height, fully bunded pump bay housing. We provide ample room to mount the wide array of dispensing, metering and filtration equipment required to support your project site requirements;
- Our Pump Bay is fully lockable. We provide a heavy duty roller door that will not flap about in the wind. Once the roller door is up, you have full access to our large pump bay housing;
- We provide a removable panel on both sides of the tank to facilitate connecting hoses or pipework when linking multiple tanks to form a Tank Farm.

#### Full under tank visibility;

- It is good practice, and is indeed an integral part of many international standards, to inspect the bottom of your tank on a regular basis;
- Equally important is the ability for a natural airflow under the tank to prevent medium to long term corrosion of the bottom of the tank;
- PT Series tanks provide full under tank visibility and access for medium to long term maintenance of the tank.



#### The PUMP - the heart of the Tank Farm Facility



#### **Benefits**

- Various international standards that specify the design of self bunded tanks do not allow gravity flow of hydrocarbons from the tank;
- A pump must be used to extract fluid from the tank. The Pump is therefore the heart of the tank farm operation.

#### **Features**

Highly efficient self priming positive displacement sliding vane pumps for low to medium viscosity lubricating and non-lubricating liquids.

- Various dispensing flow rate options up to 1200lpm;
- 2 pumps recommended one for tanker unloading and one for tank farm dispensing.
- 2 x pumps are interconnected to provide pump redundancy should a pump fail or be taken down for maintenance.

#### **FILTRATION**



#### **Benefits**

- Filtration of bulk oil and diesel fuel controls the ingress of dirt into equipment when filling up oil or fuel tanks.
- Contamination in lubricating oil or a fuel can rapidly wear away at expensive components ultimately causing catastrophic failure, higher fuel or oil consumption, leading to down time and higher operating costs.
- The Donaldson Filtration system is cartridge based. This allows scalability to allow for higher flow rates with the addition of more cartridges to the system.



#### **AIR FILTRATION**



#### **Benefits**

- The Donaldson T.R.A.P.™breather reduces the risk of dust and moisture entering storage tanks from the vent while allowing high flow rates of fluid into and out of the tank. Since many contaminants are airborne, any oil or fuel exposed to the atmosphere will become contaminated unless the air is filtered into the tank;
- Donaldson T.R.A.P.™breathers strip moisture and dirt from the incoming air, allowing only clean, dry air to enter the tank;
- The outflow of dry air picks up the moisture collected by the T.R.A.P.Breather during intake, and "blows it back out" fully regenerating the T.R.A.P.Breather's water-holding capacity.

#### **Features**

- Max. 500 lpm air flow we simply add more breather modules to allow for higher tank fill and dispensing rates up to 2000lpm if required.;
- 97% filter efficentcy;
- Will not freeze in winter;
- Safety bypass to allow free air venting in the event of filter blockage due to poor maintenance practices.





#### **METER**



#### **Benefits**

- Claim tax refunds and carbon credits on fuel usage;
- NMI approved, approval recognised by the ATO. Approval allows you to claim tax refunds and record dispensing information for carbon tax reporting purposes.
- Low Pressure Drop maximises the flow rate through the meter ensuring an adequate flow rate at the nozzle
- Low maintenance design ensures a long, reliable service life in field;
- Meets NIST, OIML, ATEX, NMI, S.WA, SABS and many other international weights and measures.

#### **Features**

TCS rotary flow meters have no metal-to-metal contact inside the chamber, eliminating any deterioration in accuracy and providing a long service life.

- 40mm to 100mm Size Options:
- Options to supply with Air Eliminator, Strainer, Mechanical Preset, Ticket Printer, Electronic Register.

#### HOSE ALFAGOMMA

#### **Benefits**

- Quality European manufactured range of dispensing hose provides a long, reliable service life in the field;
- The highest risk area of fuel spillage on site is the hose. It is important to use a quality, pressure rated, metal reinforced hose to prevent the hose from wearing and bursting over time.

#### **Features**

- High tensile textile cord with embedded steel helix wire;
- 10 bar (150psi) rated;
- Temperature Rating -30° C +80° C (-22° F +176° F).



#### **NOZZLE**



#### **Benefits**

- Ergonomically designed balanced, easier to operate, even under high pump pressures;
- Proven technology and reliability automatic cut-off system eliminates fuel spills, ensuring a cleaner and safer working environment;
- Increased productivity high flow rate capability, improved refueling times and reduced vehicle downtime. A choice of 5 shut-off pressure settings in addition to up to 4 receiver settings ensures a solution to even the most demanding refueling applications.

#### **Features**

- Easy to operate even under high pump pressures;
- Made from Steel and Aluminium, not Plastic;
- 800lpm flowrate;
- A choice of 5 shut off pressure settings in addition to up to 4 receiver settings.

#### **FUEL MANAGEMENTSYSTEMS**



#### Benefits

- iPETRO Cloud easy to use cloud based fluids management portal that provides detailed information of all aspects of your fluids storage and consumption;
- The iPETRO Pro console is a heavy duty industrial interface that is a simple, robust, reliable tool for site operators;
- Captures the date, time, volume of fuel dispensed, operator details, vehicle details and if required engine hours or odometer readings;
- Fuel is authorised to be dispensed once the system accepts the pre-defined inputs, such as use of a contactless tag and / or pin numbers;
- Reconcile your site fuel and lubricants consumption to provide reliable and accurate costing and management information;
- Accurately manage the performance of your site equipment;
- Reduce site fuel theft;
- Compliance with regulatory authorities to allow you to claim any relevant fuel consumption rebates.

# 36TEO

#### **AUTOMATIC TANKGAUGE**





#### **Benefits**

- Monitors fuel levels and density measurements in up to six tanks;
- Static and continuous tank leak detection capabilities;
- Standard communication ports;
- External USB printer support;
- Web interface for remote access;
- Programmable email notification of alarms and events;
- Compact size provides installation location flexibility;
- Autocalibration can recreate missing or inaccurate tank strapping charts;
- Access inventory remotely;
- Receive accurate delivery reports and density measurements;
- View information you need on a full-color LCD touch screen;
- Relax with automatic fuel level alarms;
- Eliminate potential human error;
- Number of tanks monitored: 6;
- Output channels: 2.

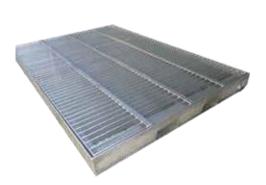
#### SPILL CONTAINMENT UNIT PETRO

#### **Benefits**

- Captures overfill spills at fill point allowing no product to ground contamination Over time it is these ongoing small releases to the environment that does most damage and leaves an expensive environmental mess to clean up;
- Can be combined with a full Oily Water Separator module.

#### **Features**

- Removable heavy duty galvanised grating;
- Multiple bung drain points for connection to site plumbing or separator systems;
- Modular design, able to be linked to form larger spill pads.



### SOME WHO ALREADY USE SMART CUBE TANKS



























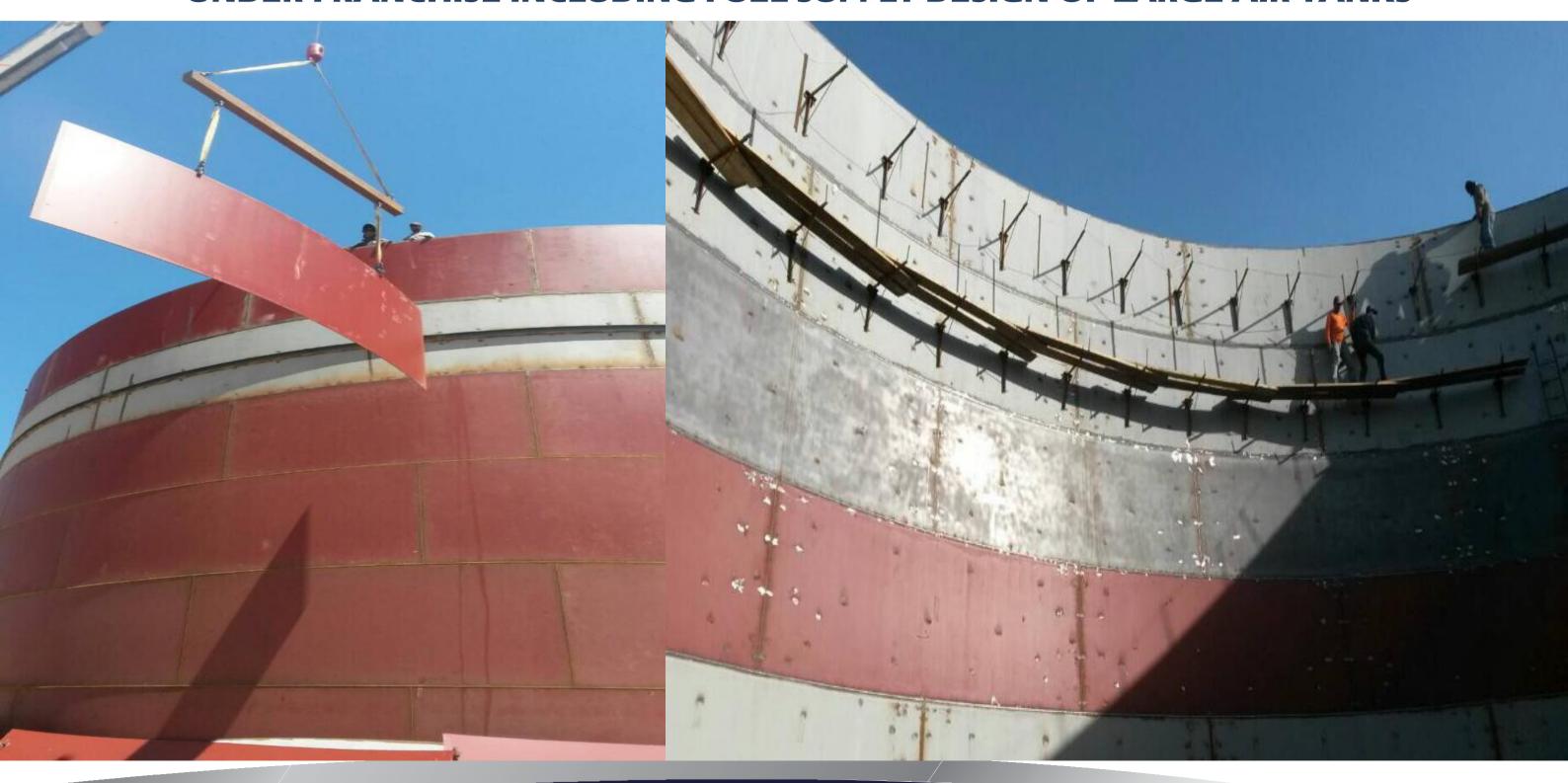




BE SMART LIKE THEY ARE, CALL US!

# #1QF - QUALITY FUELTM

## THE UNIQUE TURNKEY WORLDWIDE UNDER FRANCHISE INCLUDING FUEL SUPPLY DESIGN OF LARGE AIR TANKS











## **DESIGN & INSTALLATION OF OIL INDUSTRIAL WAREHOUSES**





**HSRC GROUP** for the **OIL & GAS** Industry, offers services through Strategic Alliances and Selected Labor of Certified International Quality and Oil Experience with more than 33 years as follows:

- Oil drilling
- Maintenance and reactivation of oil wells
- Electrical logging of wells
- Reactive and non-reactive matrix stimulation
- Integrity tests (pH)
- Pipeline Construction
- Displacement and cleaning of pipelines, production lines, among others.
- Cleaning of Separators
- Chemical cleaning of flow stations
- Tubing and Casing Clean
- Supply of chemical production
- Change of mechanical pumps
- **Construction of tank farms for fuel storage.**
- Design & Installation of Green and Modular Refineries

International Requirements

(ISO 9001, ISO 14001 And OHSAS 18001 Quality Standards)

## HSRC GROUP Designs and Installation of Turnkey Green and Modular Refineries

With International Requirements (ISO 9001, ISO 14001 and OHSAS 18001 quality standards)





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MOROCCO - SENEGAL - GAMBIA - COTE D'IVOIRE - SIERRA LEONA -**BURKINA FASO - LIBERIA - NIGERIA - CHINA** 

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