



PORTABLE FUEL

STORAGE TANK SOLUTIONS



2020

WWW.ORCAFUELS.CO.ZA

ABOUT US



ORCA FUEL SOLUTIONS IS AFRICA'S LEADING INNOVATIVE FUEL STORAGE SOLUTIONS COMPANY.

WE ARE THE LEADING MANUFACTURERS OF ENGINEERED SELF BUNDED TANKS, REMOTE REFUELLING SYSTEMS, BULK FUEL FARMS AND PLUG AND PLAY DISPENSING SOLUTIONS.

FROM DIESEL, PETROL, LUBRICANTS, HFO, JET A1 AND AVGAS STORAGE, ORCA FUEL SOLUTIONS WILL DESIGN AND MANUFACTURE A UNIQUE, ROBUST, TURNKEY, PLUG AND PLAY SOLUTION TO MEET YOUR SITE REQUIREMENTS.

OUR TEAM OF ENGINEERS, WORKSHOP PERSONAL, SITE TECHNICIANS AND SALES PERSONAL ARE AT YOUR SERVICE TO DESIGN, ENGINEER, MANUFACTURE AND INSTALL YOUR UNIQUE SOLUTION.

AS A PROUDLY SOUTH AFRICAN, WOMEN OWNED AND MANAGED COMPANY, WE PRIDE OURSELVES ON PROVIDING OUR CUSTOMERS WITH THE HIGHEST QUALITY PRODUCTS DELIVERED IN A TIMELY AND PROFESSIONAL MANNER.

WE UNDERSTAND THE CHALLENGES OF MANAGING AND STORING FUEL IN THE AFRICAN ENVIRONMENT. OUR TEAM'S ATTENTION TO DETAIL THROUGHOUT THE PRODUCT DESIGN, DELIVERY, INSTALLATIONS AND MAINTENANCE, HAVE BROUGHT ORCA FUEL SOLUTIONS TO THE FRONT OF THE FUEL STORAGE INDUSTRY WITH OUR INNOVATIVE FUEL STORAGE SOLUTIONS.

WELCOME TO THE WORLD OF ORCA FUEL SOLUTIONS.

WWW.ORCAFUELS.CO.ZA

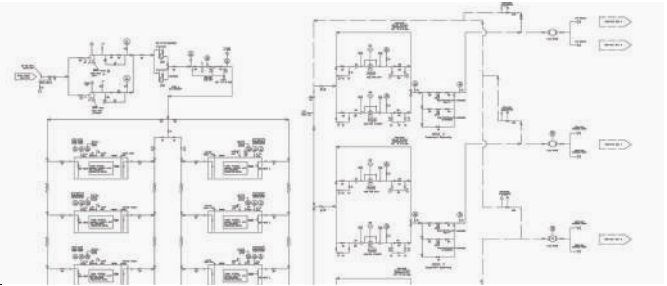
LEVEL 2 BBBEE CONTRIBUTOR
BLACK WOMAN OWNED



CAPABILITY

DESIGN & ENGINEERING

Orca Fuel's in-house, specialist engineering and drafting team has the capability to prototype, develop and tailor projects prior to production.

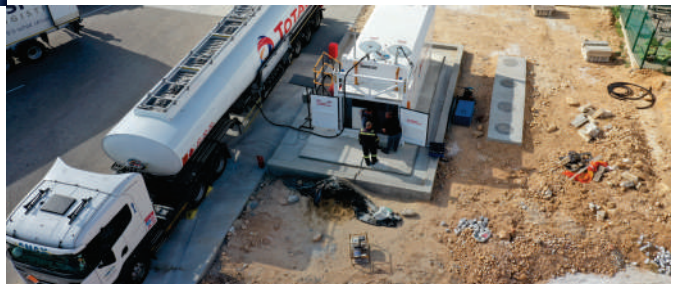


MANUFACTURING & FABRICATION

Direct factory intergration, as well as on-shore manufacturing and fabrication facility, allows Orca Fuels to tailor projects to you, with no middle man.

FUEL TANK SUPPLY

Orca Fuel is an industry-leading fuel tank supplier and industry-leading provider of self banded fuel tank solutions.



TANK FARMS

Orca Fuel provides modular, scalable, intelligently designed self banded tank farms, for the bulk storage of diesel, ULP, lubricants and other liquids.

INSTALLATION

Orca Fuel's fuel tank installation experts offer market-leading onsite installation and commissioning services.



INDUSTRIES



INNOVATIVE FUEL STORAGE SOLUTIONS

APPLICATIONS



FUEL FARMS



PORTABLE ENERGY



ONSITE REFUELLING



ONSITE REFUELLING

Provides hassle free, on site refuelling for large / small scale construction, mining and logistic equipment. No civil work or bund wall required on site. Easy to relocate. Minimise refuelling distance and equipment optimisation.



FUEL FARMS

Interconnecting tanks together for unlimited storage capacity. Increase capacity as fuel requirement increases with kit form, interconnecting pipework. Easy to relocate or split tanks and fuel locations as projects requirements change.



PORTABLE ENERGY

Rapid deployment for standby power and extending running times.



O SERIES







O-12

12,000 LITRE TANK

SFL : 11990

 2,991mm (L) x 2,438mm (W) x 2,896mm (H)


 4,848 kg (Empty) 20,079 kg (Full)




O-33

33,000 LITRE TANK

SFL : 31000

 6,058mm (L) x 2,438mm (W) x 2,896mm (H)


 4,916 kg (Empty) 22,183 kg (Full)




O-70

70,000 LITRE TANK

SFL : 67000

 12,192mm (L) x 2,438mm (W) x 2,896mm (H)


 8,660 kg (Empty) 44,838 kg (Full)




O-75NPB

75,000 LITRE TANK

SFL : 72050

 12,192mm (L) x 2,438mm (W) x 2,896mm (H)

 8,676 kg (Empty) 46,495 kg (Full)

FUEL CUBES

The FuelCube is a compact and economic stationary fuel tank designed for onsite fuel supply and fleet refuelling. The FuelCube includes features such as an integral, lockable equipment cabinet for security and 4-way forklift pockets for easy mobility when empty.



STATIONARY FUEL STORAGE TANKS.


921 - 3,846 LITRES




OS900

921 LITRE TANK

SFL : 946

 1,144mm (L) x 1,144mm (W) x 1,295mm (H)

 420 kg (Empty) 1,341 kg (Full)

WESTERN 




OS2000

2,000 LITRE TANK

SFL : 1,893

 2,210mm (L) x 1,144 mm (W) x 1,295mm (H)

 686 kg (Empty) 2,686 kg (Full)

WESTERN 




OS3800

3,846 LITRE TANK

SFL : 3,785

 2,310mm (L) x 2,210mm (W) x 1,194mm (H)

 1,252 kg (Empty) 5,098 kg (Full)

WESTERN 

TRANS CUBES

The TransCube Global is a line of transportable, environmentally friendly double-walled fuel storage tanks that offer an efficient solution for onsite fueling and auxiliary fuel supply.

With its fully transportable design and ability to fuel up to three pieces of equipment simultaneously, a TransCube will save you time and can double or triple the run times of your equipment.



TRANSPORTABLE, FUEL STORAGE TANKS.




OST950

949 LITRE TANK

SFL : 950

 1,151mm (L) x 1,151mm (W) x 1,325mm (H)


 513 kg (Empty) 1,451 kg (Full)




OST2100

2,091 LITRE TANK

SFL : 2,000

 2,294mm (L) x 1,152mm (W) x 1,324mm (H)

 830 kg (Empty) 2,952 kg (Full)




OST3000

2,980 LITRE TANK

SFL : 2,900

 2,296mm (L) x 1,546mm (W) x 1,323mm (H)


 1,021 kg (Empty) 3,976 kg (Full)




OST4700

4,700 LITRE TANK

SFL : 4,500

 2,308mm (L) x 2,308mm (W) x 1,324mm (H)

 1,676 kg (Empty) 6,234 kg (Full)



PUMP PACKAGES



LOADERS

TANKER TO TANK LOADING

FLOWRATES RANGING FROM 300LPM TO 1200LPM

WIDE RANGE OF FILTRATION AND METERING OPTIONS



REFUELLERS

MEDIUM AND INDUSTRIAL REFUELLING

FLOWRATES RANGING FROM 80LPM TO 450LPM

MEDIUM AND HEAVY VEHICLE REFUELLING



GEN FEED

LOCAL AND INDUSTRIAL GENERATOR FEED

FLOWRATES RANGING FROM 32LPM TO 110LPM

MANUAL AND AUTOMATED OPTIONS



LUBRICATION

FLOWRATES RANGING FROM 44LPM TO 105LPM

INCLUDES HOSE REEL WITH 10M HOSE AND NOZZLE



HOME BASE REFUELLING

LIGHT AND MEDIUM VEHICLE REFUELLING

FLOWRATES RANGING FROM 40LPM TO 130LPM

REFUEL MORE THAN ONE PRODUCT AT ONCE



AVIATION

AIRCRAFT REFUELLING

FLOWRATES RANGING FROM 80LPM TO 500LPM+

AVAILABLE AS DIESEL OR ELECTRICALLY DRIVEN

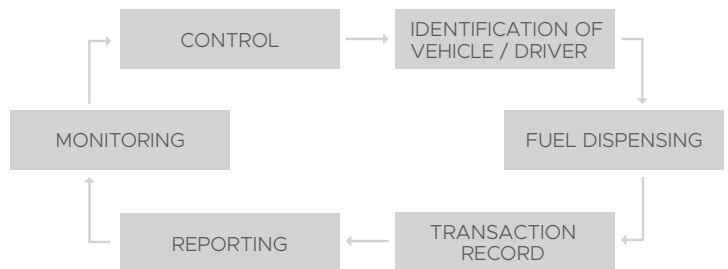
JIG COMPLIANCE

FUEL MANAGEMENT

OVERVIEW OF FUEL MANAGEMENT

Fuel Management is a cycle of activities

- Control access to fuel
- Record fuel transactions
- Easy access of transactional data in a useful format



THE SMART FUEL GEN 2 RANGE

- A solution for the complete fuel management cycle
- State of the art fuel management system built on a reliable, embedded hardware platform
- Can store up to 5000 transactions and up to 2000 vehicles and drivers
- Uses NFC (near field communication) fobs or cards.
- Users can be prompted for odometer, hourmeter, job number and a user defined input for each transaction or selected transactions.
- Power system specifically designed to cater with unstable power and provide a level of protection from lightning strikes
- Remote upgrade capability allows new features and functions to be added without a site visit
- Extensive diagnostic information accessible to tech support personnel via the web enables quick and accurate fault diagnosis
- Modular design provides for easy upgrade or repair in the field



CLICK-IN CLICK-OUT

REFUELLING

1. Operator identifies vehicle/ equipment using a card or fob.
2. Operator authorizes themselves using a PIN
3. If required, operator enters odometer and/or hourmeter
4. Selects pump, lifts nozzle and starts refuelling
5. When finished refuelling transaction details are stored in unit and transferred to the customer's website automatically



TWO PUMP
OPTION DISPLAY

NOZZLE ID – AVID SYSTEM

- The Smart fuel system can currently use keys (RFID fobs), magnetic swipe cards, HID cards or codes to identify vehicles/assets.
- The Automatic Vehicle Identification System (AVID) allows the identification device to be mounted on the vehicle and the reader to be mounted on the nozzle



NOZZLE ID – COMPONENTS

1. Smart fuel Gen 2 FMS with required pump control modules
2. Comms (Bluetooth) module, SFM2055, one installed in each Smart fuel
3. Nozzle Transceiver, AVID1000, one per nozzle
4. Vehicle passive Tags – adhesive UHF tag for vehicle identification



WHAT ARE WE DOING DIFFERENT?

- Most other nozzle ID system simply authenticate continuously
- Unless the system is finely tuned, this can limit the ability to remove the nozzle from the fuel inlet without the authorisation being terminated
- It also tends to drain the battery on the nozzle in a relatively short amount of time.
- Our design uses an inertial measurement unit (IMU) on the nozzle, which doesn't require continuous authentication with the nozzle and allows us to detect the nozzle's movement and terminate the transaction before the nozzle exits the fuel inlet. This increases battery life and makes the system less likely to be defeated when attempts are made to take unauthorised fuel.

FUEL MANAGEMENT

TELEMATICS MODULE

1. Connects to vehicles ODB port and automatically transmits odometer/hourmeter data to the Smart fuel automatically during the refuelling process
2. Ensures the value shown on the dashboard at the time of refuelling is the same as the value recorded with the fuel transaction. Unlike GPS based system no variance or need for calibration
3. No more driver entry errors



WEBSITE

- Website provided for each customer at no charge
- Transactional data from the unit is combined with other data such as rego number, driver's name and displayed on a transactions page
- Driver and vehicle details managed from website and automatically updated on all units
- Transaction report can be exported as .csv file

WEBSITE: PRO VERSION

- **Provides customisable/automated reports**
- Totals – used to generate reports such as total fuel by vehicle or driver used per week of month. The reports can be customised to whatever the customer wants totalled and then saved for regular use.
- Reconciliation – You need to have tank gauging fitted to the unit(s) to use this report. It takes the tank level at the beginning of the requested time period (current week, previous month etc) subtracts all the transactions from the tank, add the deliveries, generates a calculated level for the tank and compares that to the dip at the end of the time period.
- Consumption – Using the entered odometer data and the fuel usage to calculate the litres/100Km value for each vehicle for litres/hour for equipment using hourmeters.
- Service – Generates a report showing vehicles nearing or overdue for service based on entered service interval, odometer at last service and using the odometer values entered by the drivers.
- Provides the ability to email tank levels on a daily/weekly basis and any of the reports that have been created

>	92649	92649				EGTC	N/A	N/A				
>	92943	92943				EGTC	N/A	N/A				
>	0105007C	22354				AGT	6.97	N/A				
>	0105A67B	21907				AGT	7.21	N/A				
>	010DA57B	21902				AGT	7.18	N/A				
>	01102E7C	22356				AGT	7.40	N/A				
▼	01129D7B	20601				AGT	6.67	N/A				
Key / Code	Timestamp	Imperial Gallons	Odometer	Hours	Pump	Employee Name	PLATE NO.	COMPANY NAME	Transaction Id	KM/L	Gallons / Hour	
01129D7B	2019-03-03 19:26:54	74.44	847800	0	3	ISIDRO DE LEON TOLENTINO	20601	AGT	3645003661	N/A	N/A	
01129D7B	2019-03-03 19:27:11	68.35	847800	0	2	ISIDRO DE LEON TOLENTINO	20601	AGT	3645003662	N/A	N/A	
01129D7B	2019-03-06 10:31:45	56.79	848406	0	3	ISIDRO DE LEON TOLENTINO	20601	AGT	3645003902	N/A	N/A	
01129D7B	2019-03-06 10:32:01	33.34	848406	0	2	ISIDRO DE LEON TOLENTINO	20601	AGT	3645003903	6.72	N/A	
01129D7B	2019-03-09 09:30:30	69.68	849392	0	3	ISIDRO DE LEON TOLENTINO	20601	AGT	3645004128	N/A	N/A	

ACCESSING DATA



OPTIONAL TANK GAUGING - SMARTDIP

- If the unit is on line, tank levels can be viewed on the website in close to real time (update every 90 secs)
- Tank Alerts allow an email or SMS* to be sent showing current status and alert users if tank is too low or high.

Transactions Vehicles Plant Drivers Tanks Location Jobs SmartFill Units Admin Help Logout

TANKS

Tanks / View

View

Configuration [Add Tank](#) Rows per page: All

HISTORY

All

Dips

Deliveries

Adjustments

Configuration

Filter:

Description	Capacity	Fuel Type	Volume	Volume %	Status	Serial Number	Actions
Back-up	0	DIESEL	0	0	Ok	2005	
Generator Tank	3000	Diesel	25894	52	Ok	2005	

10 KEY DIFFERENTIATORS

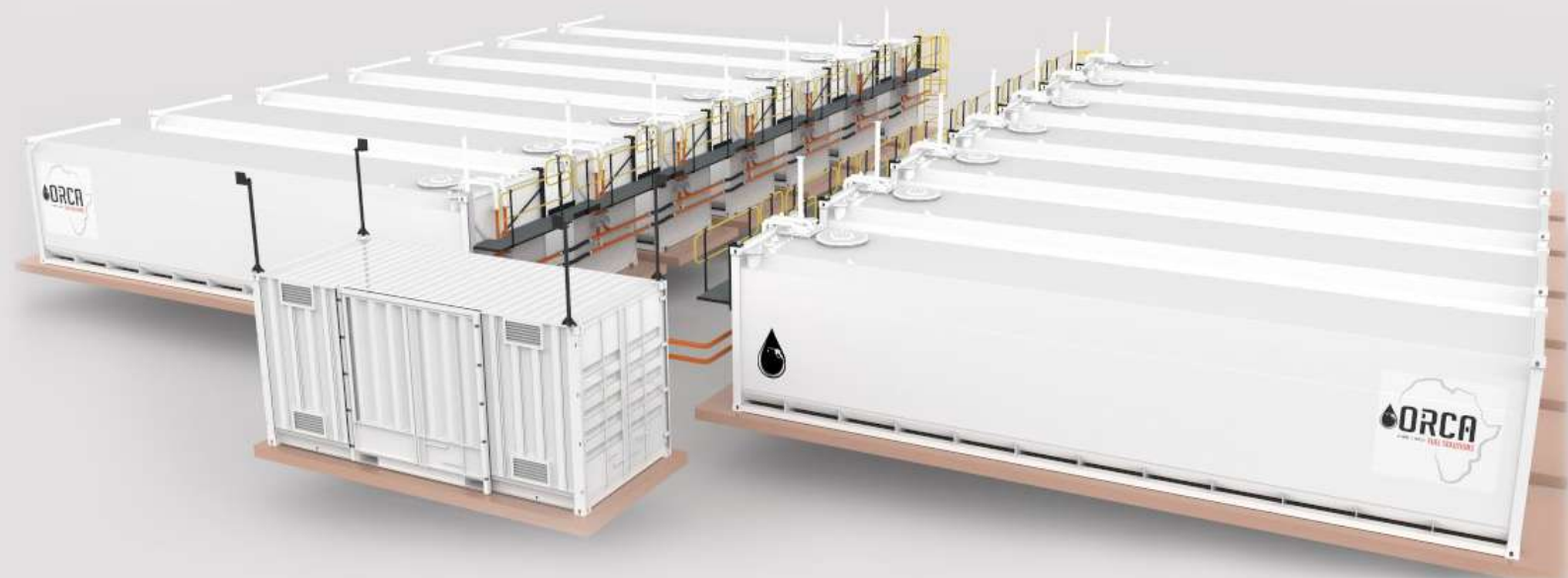
1. Most current technology on the market – NFC, standard data SIMs, colour graphics display.
A platform that allows for future development
2. Single solution for both mobile and fixed equipment
3. Highly flexible and intuitive solution that allows the customer to capture the most appropriate data for their business
4. No charge for access to data on website
5. Easy to configure via intuitive on screen menus
6. Modular design – easy repair and upgrade by skilled and unskilled staff
7. Automated nozzle identification technology for convenience and theft protection
8. Automated odometer/hourmeter solution that is not GPS based
9. Application Programming Interface (API) available to allow customers to integrate data into their own applications
10. Tech support for the life of the product

ENGINEERED

SOLUTIONS

The experience and expertise of Orca Fuel's in-house design and engineering team are available to design your unique fuel storage and dispensing solution.

Optimising fuel refuelling time and ensuring your fuel is where you need it, when you need it.





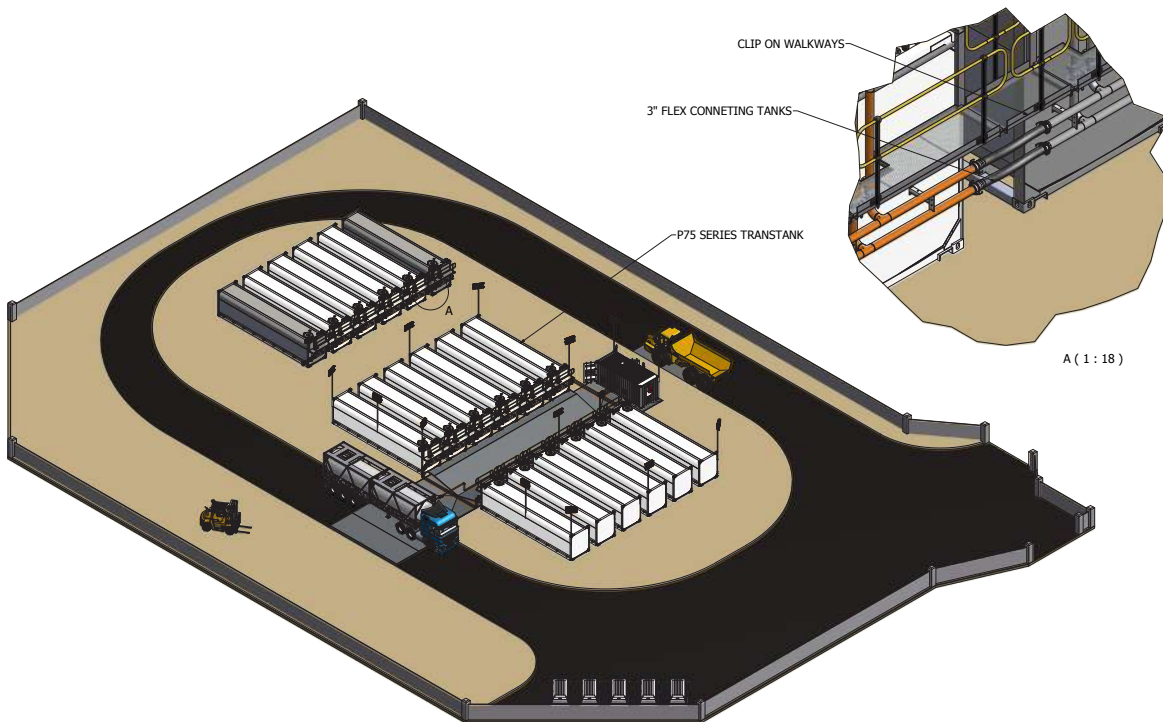
- O-SERIES**
- TOTAL CAPACITY 134,000L
 - SELF BUNDED
 - 6MM CORTEN STEEL
 - INDUSTRIAL MARINE COATED



- PP-INDREF 80+450**
- HV REFUELING @450LPM
 - LV REFUELING @ 80LPM
 - OEM MECHANICAL METER
 - FILTRATION

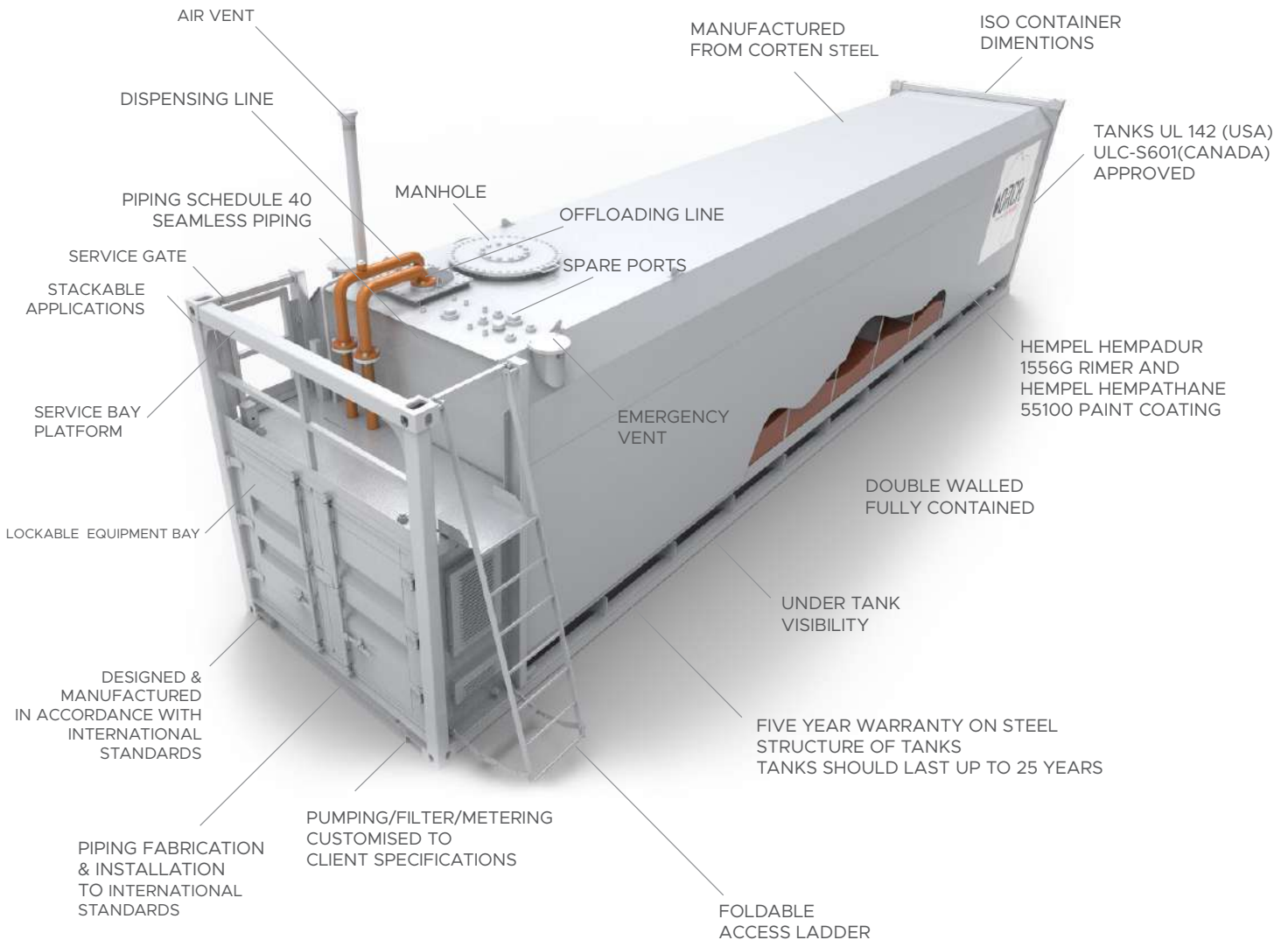


- PP-LOADER 800**
- 800LPM OFFLOADING
 - OEM MECHANICAL METER
 - BULK FILTRATION



OUR SELF-BUNDED - DOUBLE-WALLED TANK ARRANGEMENT

PERSPECTIVE SHOWING THE TANK ARRANGEMENT



CERTIFICATION

ULC-S601-14

The Canadian acceptable standard for shop fabricated steel aboveground tanks for flammable and combustible liquids.



AS 1692

Australian standard for steel tanks for flammable and combustible liquids.

AS1692

AS 1940

Australian standard for the storage and handling of flammable and combustible liquids.

AS1940

The USA / NA Recognized Standard for Safety: steel aboveground tanks for flammable and combustible liquids.



NFPA

National Fire Protection Association: Flammable and combustible liquids code applicable in the USA.



TRANSPORT CANADA

Department responsible to serve the public interest for developing regulations, policies, programs and services to promote safe, secure, efficient and environmentally responsible transportation in Canada.



VLAREM II

Flemish environmental regulation; Chapter 5.1 for oil or petroleum products.

VLAREM

UN IBC 31 A/Y

The United Nations approved international standard on design, manufacture and use of intermediate bulk containers for the transportation of dangerous goods. The UN IBC 31A/Y is applicable to the use of specially fabricated steel tanks that allows the legal transport of dangerous good by road, rail and sea, packaging groups II & III.



UN IMDG

Carriage of dangerous goods by sea is regulated in order reasonably to prevent injury to persons or damage to ships and their cargoes. Carriage of marine pollutants is primarily regulated to prevent harm to the marine environment. The objective of the IMDG code is to enhance the safe carriage of dangerous goods while facilitating the free unrestricted movement of such goods.



CASE STUDIES

COLD STACKING OIL RIG CASE STUDY

CHALLENGE

Cold stacking is where a rig is stored at minimum expense. There will still be a minimum level of attention needed, for example there has to be security staff to prevent vandalism. General inspections, waterproofing and repairs need to be done to avoid the rig becoming dangerous, or for some materials leaking or falling into the ocean. Staff that live on the oil rig have to manage under extreme conditions. Having a diesel generator with a sufficient diesel storage supply is critical in maintaining a constant power supply. The remote nature of the location of oil rigs is often met with very intermittent and unreliable fuel delivery supply.



SOLUTION

Orca Fuels team designed a UL 142 approved, self-bunded, ISO container, 30 000L diesel storage tank to supply diesel to the main generators. An industrial feed pump set was designed and incorporated into the tank along with an integrated, automatic, tank level gauging system. The entire tank/pump system combined with the safe interlocks, ensured the safe, secure and automated fuel delivery from the main tank to the generators. All pumping equipment, filtration and level gauging was preinstalled into the tank along with the electrical panels and piping. Zero installation was required onsite, besides simply connecting the power to the electrical panel and the connection of the quick couplings between the tank and the generator.



RESULT

Having a large fuel storage to supply the generator with constant, reliable and safe fuel supply has allowed the staff to stay permanently without the concern of power outages. With uninterrupted power supply, the cold stacking oil rig crew run a much more efficient and effective operation.



“Orca Fuel Solutions provided a first class product and we were very happy with the service we received.”

INPIT REFUELLING CASESTUDY

CHALLENGE

With the current push back in progress and the pit advancing deeper in the North and South, the team had been tasked with investigation of the optimization of refuelling the rubber tyre equipment on site. Current refuelling takes place at the traditional fuel farm close to the workshop and admin offices. The distance from the pit to the fuel farm is on average 1750m, impacting truck productivity, utilization and fuel burn.



SOLUTION

To alleviate this it was proposed to install two remote fueling stations designed by Orca Africa. The self bundled fuel tanks, with remote refuelling pumps, were placed at strategic locations in close proximity to the pit, where they could easily be refuelled by the tanker and not be affected by blasting operations.



RESULT

By strategically placing the re-mote refuelling stations closer to the pit, this reduced the vehicle refuelling distance and time, resulting in a dramatic reduction in the operation cost and in turn an increase in machinery productivity. In conclusion, a total saving of \$171,000.00 per annum and a return on investment was realised in the first 9 months.



“TOTAL SAVING OF \$171 000 PER ANNUM & ROI WAS REALISED IN THE FIRST 9 MONTHS”

OUR TEAM



BONITA BOTHA
GENERAL MANAGER
BONITA.BOTHA@ORCAFUELS.CO.ZA



JACKY SHAPIRO
MANAGING DIRECTOR
JACKY.SHAPIRO@ORCAFUELS.CO.ZA



BRADLEY CLAASSEN
TECHNICAL SALES MANAGER
BRADLEY.CLAASSEN@ORCAFUELS.CO.ZA



THEMBI DODA
INTERNAL SALES CO-ORDINATOR
THEMBI.DODA@ORCAFUELS.CO.ZA



VIRGINIA RANISI
COMPANY ADMINISTRATOR
INFO@ORCAFUELS.CO.ZA



JUSTIN SHUB
SERVICE AND SALES MANAGER
JUSTIN.SHUB@ORCAFUELS.CO.ZA



MARGI KNIPE
CUSTOMER LIASON MANAGER
MARGI.KNIPE@ORCAFUELS.CO.ZA



MATHEMBA GOQWANA
SENIOR TECHNICIAN
MATHEMBA.GOQWANA@ORCAFUELS.CO.ZA



SHADRACK KHOZA
SENIOR TECHNICIAN
SHADRACK.KHOZA@ORCAFUELS.CO.ZA

WHY US...

Orca Fuel Solutions is Africa's leading Fuel Storage Solutions company.

We manufacture and market a range of products suitable for the storage of diesel, petrol, DEF and lubricants. Our tanks, commercial/retail refuelling pumps and fuel management systems are well designed to meet the robust Africa environment.

Our dedicated team of technicians, engineering and sales personnel have more than a hundred combined years' experience in the industry, and are able to engineer solutions to meet your requirements. From design, to installation and fuel management, we have the knowledge and experience to create the perfect solution for your project.

"We provide portable fuel storage tank solutions from design to installation"

Amera Kebede

Tristar - Group

In addition to financial saving, I can also see the environmental effect this solution has by reducing the carbon foot print.

This is just in one installation and I was thinking of the effect if similar thinking goes to other projects. There is always room for improvement..



Ebenezer Ayernor

Build - HAAP Ghana Ltd.

With regards to the works executed at the Canadian High Commission in Ghana, Build-HAAP Ghana is very pleased with the work done. Communication between you and us was very effective, hence enabling us to achieve our goal.

We are very glad we had a team like yours.

Looking forward to working with you on similar projects.



Peter Hatten

West Eclipse

The tank will certainly be well utilised within our fleet.

Should the Eclipse gain a contract, we are in the position to ship the container elsewhere to other countries around the world. Seadrill appreciates the good responses we have had over the last few months.





HOSE REEL RACK



LIGHT AND HEAVY VEHICLE REFUELLING



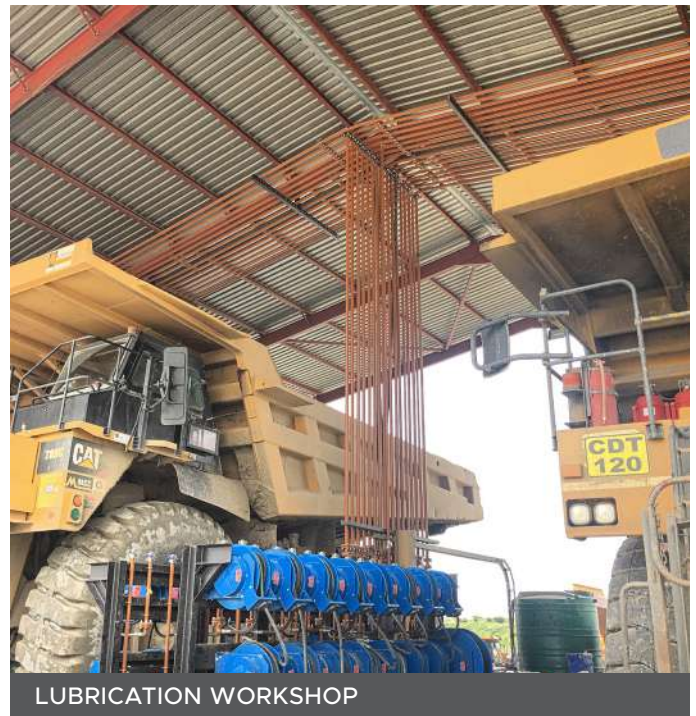
COMPLETE FUEL SOLUTION



80 + 450 DISPENSING



INPIT REFUELLER



LUBRICATION WORKSHOP



SPLIT COMPARTMENT TANKS. PETROL / DIESEL AND PARAFFIN

CONTACT US

PHYSICAL ADDRESS:

TRANSNET NARROW GAUGE YARD,
POMMERN ROAD,
HUMERAIL, PORT ELIZABETH

CONTACT DETAILS:

HEAD OFFICE T: +27 11 626 3607
AFRICA T: +27 60 967 7382
UK T: +44 79 0082 8372
INFO@ORCAFUELS.CO.ZA

WWW.ORCAFUELS.CO.ZA

