



***It's time
to change to...***

Intelligent Oil Storage Systems



Kingspan GSP - The Company, The Products - The Hot Favourite

Kingspan GSP has long been established as one of the big names in oil storage. A clear innovator and champion of environmental concerns the Kingspan GSP name has become synonymous with excellence and value.

Safe oil storage is a priority and as you would expect all Kingspan GSP oil tanks are packed with safety features, Kingspan's range of Smart Tanks and EcoSafe oil storage solutions represent the cutting edge of tank technology. All Kingspan GSP oil tanks comply with and go beyond the current EU oil storage regulations and most are OFTEC (Oil Fired Technical Association) approved.

There are different tanks for different applications. From single skin tanks for simple domestic usage to high-tech bunded systems for commercial properties, Kingspan GSP have the right tank for the job.

All tanks are guaranteed for 10 years against material or manufacturing defect making them the first choice for heating engineers, oil distributors, home and commercial property owners.

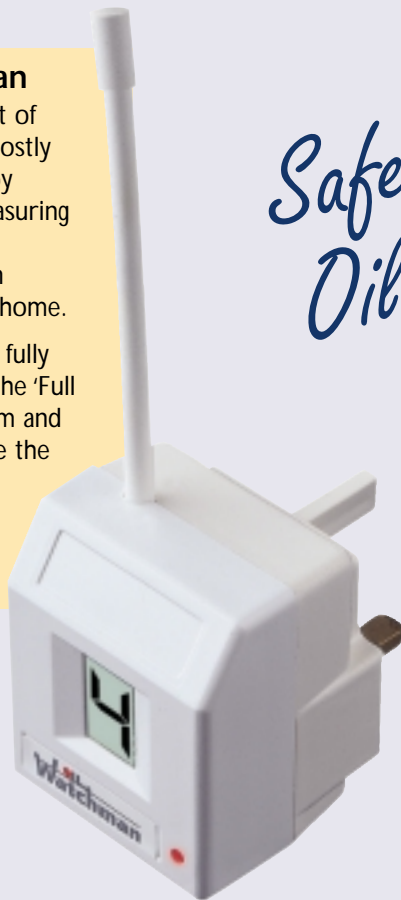
The experience gained by Kingspan GSP in 20 years as a market-leading manufacturer has enabled them to build on their extensive knowledge and introduce an exciting range of smarter oil storage solutions. This brochure alone features twenty two oil storage tanks, the biggest range available from any manufacturer.

The Kingspan GSP range of tanks sets the standards for today's environmentally conscious market. Three distinct ranges offer oil and fuel storage solutions for all applications.

Oil Watchman

Avoid running out of heating fuel and costly call-out charges by electronically measuring the oil level and transmitting to an indicator in your home.

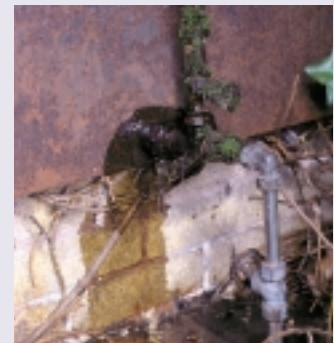
The Watchman is fully compatible with the 'Full Stop' alarm system and will accommodate the installation of the Signalman fuel monitoring system.



*Safe, economical, reliable.
Oil - the **HOT** favourite!*

This will not happen ...with a Kingspan GSP tank

With ordinary tanks, conventional external sight gauges often become unreliable, only lasting a couple of years before the plastic tube fogs up. They also present a serious potential leak point and prone to accidental damage and vandalism.



**Oil is a safe, economical and reliable source of heating your home.
Oil is available from **YOUR CHOICE** of nationwide supplier.**

Choose Oil! There's NO Beating Oil Heating!

Smart Tank

'Smart Tanks' are feature packed systems designed mainly for domestic applications where bunding is not a legal requirement. These tanks, if required can be supplied without the added equipment but the preferred option is the all inclusive Smart Tank version. Consult your supplier for helpful advice on the best Kingspan GSP tank for your application. Secured beneath the lid is the 'Tank Pack' which includes the Watchman transmitter and receiver, battery, lever valve with integral filter bowl, PTFE and Heldite compound to seal the joint. The Watchman is compatible with the 'Full Stop' overfill prevention device, ensuring no spillage is made during delivery.



EcoSafe

Bunded **EcoSafe** tanks represent the most advanced range of integrally bunded oil storage systems available in the EU. Designed to exceed the recent oil storage regulations, the **EcoSafe** range is factory fitted with the Watchman Plus complete pro-active fuel monitoring system which, apart from monitoring the oil level in the tank acts as a bund safety sensor. **EcoSafe** was launched a few years before the new regulations and has become established as the best bunded tank in the market place. Designed for commercial, industrial, institutional and agricultural properties where bunded tanks are now compulsory the **EcoSafe** range is also being selected by an increasing number of domestic users for its safe, environmental features.



Fuelmaster

The Fuelmaster range of fuel storage and dispensing tanks is designed to answer the need of the commercial company with transport and yard vehicles as well as farmers with on-site fuel storage.

Regulations insist that fuel dispensing tanks are now bunded and Kingspan GSP's Fuelmaster represents the solution, offering safe, lockable on-site fuel storage.



Kingspan GSP has strong relationships throughout the oil supply and oil storage industry. A network of installers, distributors and merchants who use the Kingspan range of tanks work alongside the oil suppliers ensuring that the customer receives the best all round service. From the initial enquiry through to the installation of the tank the service from Kingspan GSP and its industry partners means that the end user can expect an excellent all round service.

Changes to Oil Storage Regulations in England and Wales

Within the commercial, industrial, institutional and agricultural sectors the regulations throughout England and Wales specify that all new oil storage systems over 200 litres must be bunded. Existing installations in sensitive areas that might be considered to be at risk should be replaced with bunded systems by September 2003.

By May 2005 all non-domestic sites must have bunded oil storage tanks. In addition to this, domestic oil storage tanks in sensitive areas and all domestic tanks over 2500 litres should be bunded. Kingspan GSP's **EcoSafe** system is the established solution to all of these requirements.

What is a bund?

A bund is a second skin or form of containment that will hold 110% of the contents of the inner tank, should there be a problem.

There are two methods of providing a bund, the safe and simple method or the traditional and complicated method.

EcoSafe provides the safe and simple answer?

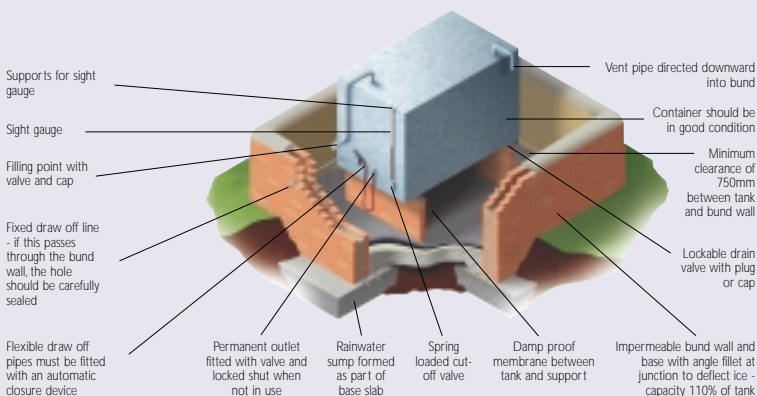
- Factory engineered integral bund
- Guaranteed for 10 years
- Built-in UV protection
- Low maintenance
- Watchman Plus complete pro-active fuel monitoring system
- Cost savings included



'Sectional view of an EcoSafe bunded tank'

- Outer Skin
- Bund area
- Inner tank

Traditional Bunds...the complicated option!



As per CIRIA Report 163

- Fact** Oil tank installations in England and Wales must comply with the recent Control of Pollution Act and Building Regulations Document Part J 2002; in Republic of Ireland - Document J 1997; in Scotland - Part F and, in Northern Ireland - Technical booklet L.
- Fact** Building a bund costs more than installing a new bunded tank.
- Fact** Rainwater collected in masonry bunds is classified as being contaminated.
- Fact** Removal of that rainwater can cost up to £200 per month.
- Fact** You have limited time to comply.
- Fact** Oil leaks from old single skin tanks result in heavy fines.

The answer is simple, don't make life complicated, install a Kingspan GSP **EcoSafe** to comply with the new regulations.

Smart Tank

Single Skin Oil Storage Systems

Smart Tanks are the most advanced single skin oil tanks available today. With capacities ranging from 1,000 to 10,000 litres there is a Smart Tank available for every application.

Manufactured from tough medium density polyethylene, all Smart Tanks come with a 10 year guarantee offering peace of mind to domestic users who rely on oil fired heating in the home.



KST 1100SL 1100 litres/250 gallons

Width	945 mm	(37")
Length	1940 mm	(76")
Height	1045 mm	(41")

OFCERT No. 0641119504



KST 1000SS 950 litres/210 gallons

Width	675 mm	(27")
Length	1985 mm	(78")
Height	1290 mm	(51")



KST 1150SR 1150 litres/253 gallons

Width	610 mm	(24")
Length	2060 mm	(81")
Height	1290 mm	(51")

OFCERT No. 0641119506



KST 1100KR 1100 litres/245 gallons

Width	705 mm	(28")
Length	1680 mm	(66")
Height	1320 mm	(52")

OFCERT No. 200005



KST 1300V 1300 litres/285 gallons

Diameter	1260 mm	(50")
Height	1260 mm	(50")

OFCERT No. 0641119402

Smart Tank

Single Skin Oil Storage Systems



KST 1200LP 1200 litres/260 gallons		
Width	1140 mm	(45")
Length	2020 mm	(79.5")
Height	890 mm	(35")

OFCERT No. 064111014



KST 2500H 2500 litres/550 gallons		
Width	1260 mm	(50")
Length	2255 mm	(89")
Height	1290 mm	(51")

OFCERT No. 0641099910



KST 1360C 1360 litres/300 gallons		
Width	1080 mm	(43")
Length	1950 mm	(72")
Height	1055 mm	(42")

OFCERT No. 0641119401



KST 2500V 2500 litres/550 gallons		
Diameter	1700 mm	(67")
Height	1410 mm	(56")

OFCERT No. 0641099911



KST 1800H 1800 litres/400 gallons		
Width	1130 mm	(44")
Length	2055 mm	(81")
Height	1145 mm	(45")

OFCERT No. 0642119616

Tank Pack



Smart Tank

All tanks on this page used for the storage of oil at a location defined as domestic, industrial, commercial or institutional must be provided with a bund or secondary containment as defined by BS5410 Part 1 and 2 and relate to the requirements in England and Wales of Building Regulation Document J 2002, in Republic of Ireland Document J 1997, in Scotland Part F and in Northern Ireland Technical Booklet L.

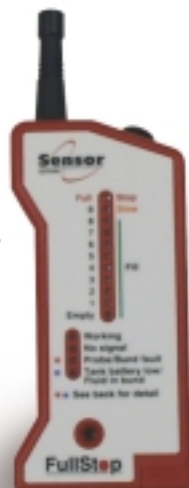
Particularly suitable for domestic usage, the Smart Tank features the Watchman 'fuel level monitoring system'. This high-tech replacement for the traditional sight gauge ensures that the level of oil in the tank is transmitted to the property via a small plug-in monitor. Not only is it reliable and safe, the Watchman also removes the hassle of going outside to check oil levels.

FullStop Overfill Alarm

The FullStop overfill alarm electronically senses the level of fluid in the storage tank and allows drivers to monitor the fill and to fill right up to the safe level every time.

- Operates on any tank
- Helps prevent spills
- Maximises tank capacity usage
- 400 metre wireless range
- Audible and visual alarms
- Operates with Sensor Systems Watchman and Ultiman
- Updates every second

The FullStop is activated by a simple, one-button action when it is within 50mm (2 inches) of the tank transmitter. It then indicates to the driver, visually and audibly, the fuel level inside the storage tank.



KST 3500V 3500 litres/775 gallons

Diameter	1840 mm	(72")
Height	1750 mm	(69")

OFCERT No. 0642119615



KST 5000V 5000 litres/1100 gallons

Diameter	2040 mm	(80")
Height	2260 mm	(89")

OFCERT No. 0641099912



KST 10000V 10000 litres/2200 gallons

Diameter	2550 mm	(100")
Height	2540 mm	(100")

OFCERT No. 0642119614

EcoSafe

- regulation compliance **built-in...**

EcoSafe bunded oil storage systems represent the most advanced and safe oil tanks available. Fully bunded and packed with features, these tanks provide the answer to all the regulatory requirements, keeping your site within the law whilst protecting the local environment.

All **EcoSafe** bunded tanks comply with the bunding capacity requirements of the OFTEC OFS T100 standard. All **EcoSafe** bunded tanks are guaranteed for 10 years. All bunded tanks come with the Watchman Plus pro-active fuel monitoring system which is fully compatible with the 'Full Stop' overfill alarm system.

The Watchman Plus displays the level of oil in the inner tank on a simple plug-in display. If an overfill should occur, a flashing red light will activate on the plug-in display, drawing your attention to the problem.

Also fitted is a siphon pipe to remove any liquid in the bund. The Tank Pack has a 1/2" reducer, unique lever valve filter, PTFE and Heldite compound to seal the joint, supplied as standard.

*Environmental Pollution?
EcoSafe Solution!*





ES 1225 1225 litres/269 gallons

Width	1000 mm	(40)
Length	2070 mm	(81)
Height	1580 mm	(62)

OFCERT No. 0642040233



ES 1360 1360 litres/300 gallons

Width	1279 mm	(50")
Length	2162 mm	(85")
Height	1160 mm	(46")

OFCERT No. 0641110225



ES 1800 1800 litres/400 gallons

Width	1280 mm	(28")
Length	2360 mm	(66")
Height	1380 mm	(52")

OFCERT No. 0642040234



ES 2600 2600 litres/590 gallons

Width	1550 mm	(61")
Length	2465 mm	(97")
Height	1450 mm	(57")

OFCERT No. 0641099913



ES 5000 5000 litres/1100 gallons

Diameter	2225 mm	(88")
Height	2380 mm	(94")

OFCERT No. 0642109917

Note: The capacities shown are nominal and 97% of the brimful of each tank. Refer to page 11 for outlet sizes

Fuelmaster

The best and safest way to store vehicle fuel for all commercial and agricultural applications

Fuelmaster

Fuel Storage Dispensing Systems

Now you can safely dispense fuel on-site, using the Fuelmaster which meets all the requirements of the oil storage regulations. The lockable outer casing of the tank conceals an integral dispensing pump. The FM2500 has a 4m hose and a choice of four pumps; electric 230V, site 110V, 12V battery with crocodile clips or rotary hand pump. This version has an optional extra of Flowmeter (55 litres per min) or auto shut-off nozzle. The FM5000, with a 6m hose, has as standard the 230V pump with auto shut-off nozzle and flow meter.



FM 5000 5000 litres/1100 gallons

Width	2330 mm	(92")
Length	3120 mm	(123")
Height	2090 mm	(82")

OFCERT No. 0642070130



FMV 5000 5000 litres/1100 gallons

Diameter	2250 mm	(89")
Height	2480 mm	(98")

OFCERT No. 0642060236



FM 2500 2500 litres/550 gallons

Width	1430 mm	(56")
Length	2530 mm	(100")
Height	1855 mm	(73")

OFCERT No. 0642069817

Product	Capacity (litres)	Pump Type	Automatic Nozzle	Flow meter
FM2500GR230VAN	2500	230 volt	●	○
FM2500GR230VANFL	2500	230 volt	●	●
FM2500GR110VAN	2500	110 volt	●	○
FM2500GR110VANFL	2500	110 volt	●	●
FM2500GR12VAN	2500	12 volt	●	○
FM2500GR12VANFL	2500	12 volt	●	●
FM2500GRR	2500	Rotary	Std Nozzle	○
FM2500GRRFL	2500	Rotary	Std Nozzle	●
FM5000GR230VANFL	5000	230 volt	●	●
FMV5000GR230VANFL	5000	230 volt	●	●

● – Included ○ – Not Included

Specifications for Pump

Fluids allowed: Diesel Fuel

Viscosity: From 2 to 5.35 Cst at 37.8°C

Min. flash point (pm): 55°C



Points for consideration before choosing a tank design and outlet option

- Installation should meet current Building Control/Environment Agency/Pollution Control guidelines.
- For good working practice guidelines on how to locate, install and maintain the tank refer to OFTEC Technical Information Book 3 and BS5410 Part1: 1997
- Siting of the tank refer to OFTEC Technical Information Book 3.
- Ascertain if tank needs secured in place in exposed conditions. Do not drill holes in tank.
- Consult boiler manufacturers recommendations and table for sizing of fuel supply pipe.
- Determine if a Tigerloop de-aerator (Fig 2) should be used.
- All associated pipe work must be independently supported.
- For bottom outlet the length of pipe run, tank height and boiler requirements will determine the outlet size. Top outlets are treated as a separate item (see figure 1).
- For all tanks please take into consideration Health and Safety/Building Regulations Part J in regards to filling and handling of the tank. The Smart Tank and EcoSafe range of tanks are supplied with an electronic content gauge, bund overflow alarm as standard.
- Buried pipe work needs to meet OFTEC T1/134 guidelines and BS5410 Part 1: 1997.
- Raised installations needs to meet OFTEC guidelines and BS5410 Part1: 1997.
- Indoor installation needs to meet OFTEC T1/127 guidelines and BS5410 Parts 1&2
- For vapourising appliances bottom outlets are preferred, however, if a top outlet tank is used a lift pump will be required – consult the appliance manufacturer for technical advice.
- For commercial and industrial installations refer to BS5410 Part 2: 1978.
- It is recommended that a suitably qualified engineer installs and maintains the tank to satisfy warranty conditions.
- Maximum fill rate of 400 litres per minute.
- The tank should be inspected annually for water and sludge which, if present, should be removed.

Fig. 1: Pipe Sizes for Top Outlets

Copper Pipes Ext. Dia (mm)	Recommended Pipe sizes for oil burners up to 30kW Output or Nozzle Capacity of 2.5 KG/H										
	TOTAL SUCTION HEAD (M)										
	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	
TOTAL LENGTH OF PIPE (M)	0	6	6	6	6	6	6	6	6	8	10
	10	6	6	6	6	6	6	6	6	10	10
	15	6	6	6	6	6	6	6	8	10	-
	20	6	6	6	6	6	6	8	8	10	-
	25	6	6	6	6	6	6	8	8	10	-
	30	6	6	6	6	6	6	8	8	10	-
	40	6	6	6	6	6	8	8	8	10	-
	50	6	6	6	6	8	8	8	10	10	-
	60	6	6	6	8	8	8	8	10	10	-
	70	6	6	8	8	8	8	8	10	-	-
	80	6	8	8	8	8	8	8	10	-	-
90	8	8	8	8	8	8	10	10	-	-	
100	8	8	8	8	8	8	10	10	-	-	

Kingspan GSP provide an aesthetic selection of oil storage tanks from 1000 to 10000 litre capacities, suitable for all installations. Most tanks in the range have undergone stringent independent OFTEC (Oil Fired Technical Association) tests to OFS T-100 standards and are identified in this brochure by their unique OFCERT number. Tests carried out include minimum wall thickness, deformation, capacity, raw material conformity and certification.

Ordinary tanks can be installed with ill-fitting parts that may not conform to the standards and may not be fully guaranteed by Kingspan GSP. The installation and location of an oil storage tank is critical as with regards to protection against fire. When selecting your site, refer to BS5410 Part 1 or 2 and/or refer to OFTEC Technical book 3. It is advisable to carry out a site risk assessment to OFTEC TI/133. It is also a requirement of our guarantee that the tank is properly supported across its entire base area. The installation and location of an oil storage tank is also governed by the above Building Regulations and refers to BS5410 Part 1 for installations up to and including capacity 3500 litres and Part 2 for installations of 3501 litres and above. Please contact our office for advice.

Fig. 2: Tigerloop De-aerator

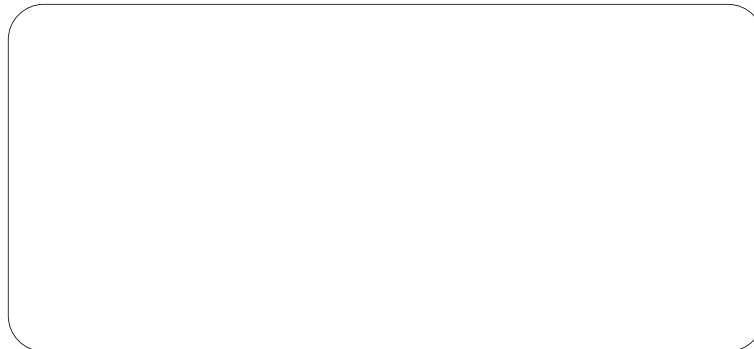
A device fitted in the oil line close to the heating appliance to help the drawing of oil up to a level higher than the level of oil in the tank. It does this by removing the air and vapour created when the pump in the oil boiler applies suction to the high-level oil line. Plastic bodied de-aeration devices are always fitted outside buildings. Fitting a Tigerloop eliminates the need to bleed the boiler if you should ever run out of oil, saving you time and money'





Kingspan® *first* to deliver
what's next in *safe* oil storage

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