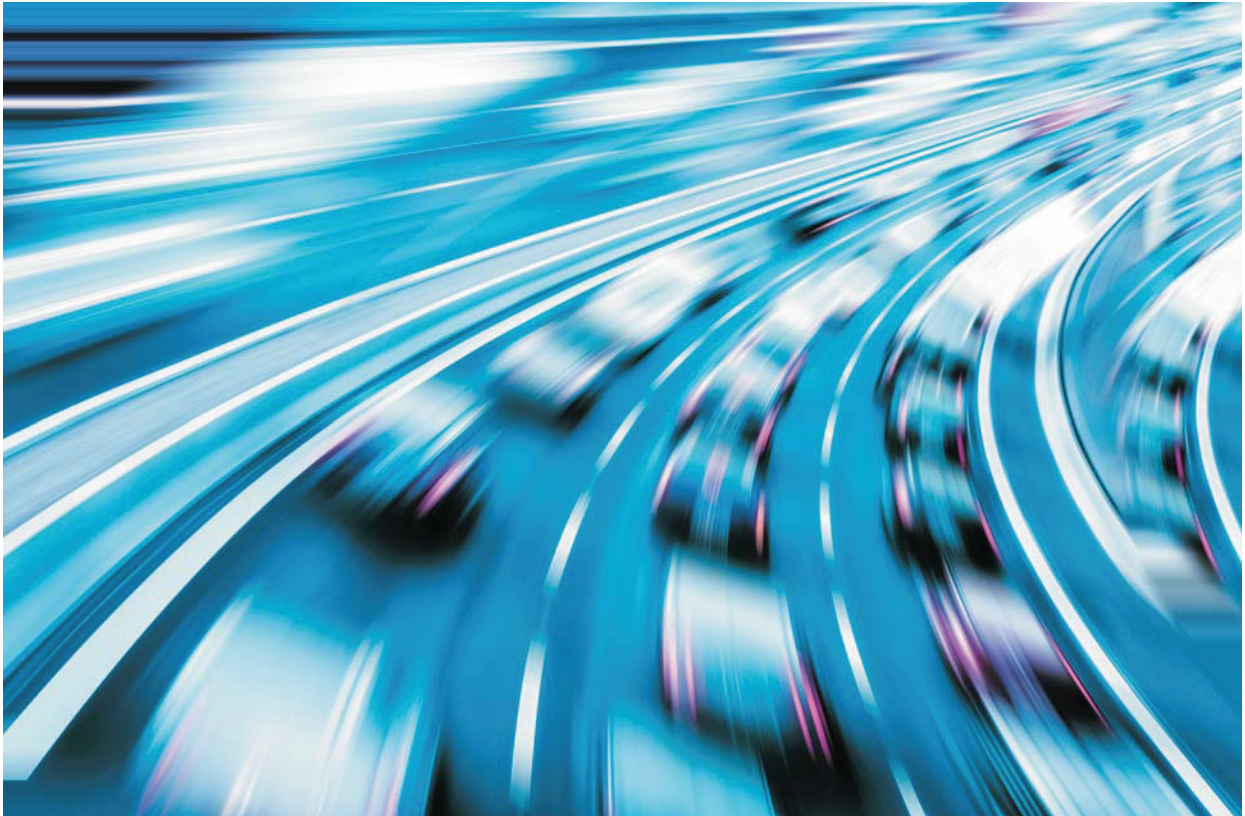


Our tank manufacturing excellence fuels our success. We'd like it to be part of your success too.



forgeweld

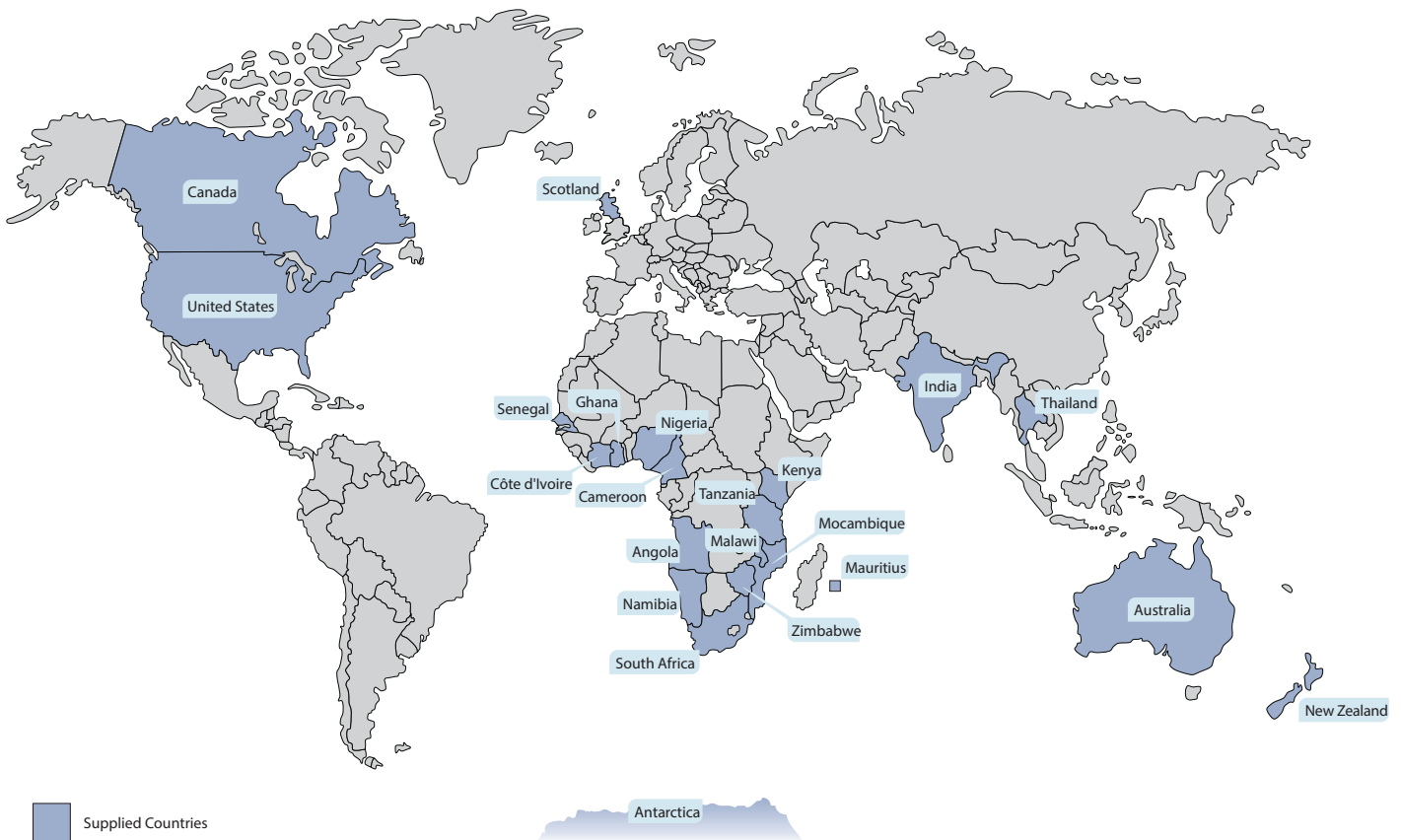
**LEADERS IN STEEL TANK
MANUFACTURE, SINCE 1963.**



Member - Steel Tank Institute of America; South African Bureau of Standards Certified; ISO 9001 Compliant; Underwriters Laboratory Certified.

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WORLDWIDE



If you've been tasked with choosing or specifying storage solutions for the petrochemical industry, the name Forgeweld should be reassuringly familiar to you. It is a name on which you can rely.

We've been in business since 1963, and are one of Africa's leading manufacturers and suppliers of both underground and aboveground fuel storage systems to the industry.

Propelled by strong support in Southern Africa, we are rapidly expanding our presence on the world stage, exporting quality cost-effective products all over Africa, the Indian Ocean Islands, the Middle East and Asia and Australia.

The range you can rely on

We manufacture and supply a range of competitively priced, quality products incorporating the most up-to-date technology available worldwide. These products include underground and aboveground storage tanks, as well as tank ancillary equipment.

Safety for people - and the environment

Increasing public concern for the environment resulted in the development of tanks which would ensure the safe underground storage of fuels by preventing leakage into the soil. Since fuel leakage is caused largely by the corrosion of the tank wall, often as a result of substandard coatings being applied to it, Forgeweld recognised the need to manufacture a product that would offer the best possible system for the prevention of leakages resulting from corrosion.

We are accredited by international standards authorities, the South African Bureau of Standards, and the United States Underwriters Laboratory. In addition to these credentials, we can manufacture to European CEN standards.

Ancillary equipment

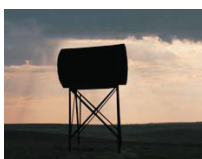
Our range includes tank ancillary equipment, sourced both locally and from Hockmann-Lewis and Franklin Fueling Systems of the USA, as well as from some of Europe's top manufacturers, including NUPI of Italy and LAFON of France.

As renewable resources become ever more important forms of clean energy, Forgeweld is determined to keep abreast of the latest trends and developments and is looking at ways in which the company can contribute to renewables technology.

Service to match our product excellence

Our high production focus is backed by excellent customer service from our friendly and efficient team.

We aim to supply our customers with the ultimate fuel storage solutions. And we endeavour to demonstrate that profitability, concern for the environment and caring for people can go hand in hand.



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ABOVEGROUND TANKS

BULK TO FARMER TANKS Tough enough to handle the rough, Forgeweld's diesel tanks have become a familiar sight on the South African landscape. Generations of farmers have relied on the durability and the workmanship that go into building these cylindrical storage tanks that just last and last.

CRADLE-MOUNTED & SKIDS-MOUNTED TANKS Either mounted on cradles fixed to the floor, or fitted with skids that enable easy repositioning where required on site, the tanks in this range are built to withstand the onslaught of the elements and manhandling over the roughest terrain. Constructed in hardwearing 6 mm carbon steel, these are Forgeweld's trusty workhorses for the fuel and construction industries.

SELF-BUNDED TANKS On site, on time and on spec for safety and eco-friendly spill-control. Forgeweld self-bunded tanks are a popular choice for construction sites. The tanks are transportable and can be easily repositioned on site. Constructed from durable steel, each tank-within-a-tank carries a 12-month workmanship guarantee. The tanks are positioned in either a round or a square bund.

FIREGUARD™ TANKS Forgeweld Fireguard™ tanks are the solution to the storage of Class 1 liquids above ground. They're transportable, reliable, internationally accredited and class-leading - a Forgeweld exclusive. A steel primary containment tank, contained within a steel secondary tank, with a unique, lightweight insulation called the Steel Tank Institute of America (STI) Ingredient "B", in between. Forgeweld, a member of the STI, is the exclusive manufacturer and distributor of Fireguard™ in the Southern Hemisphere.

UNDERGROUND TANKS

COMPOSITE BONDED TANKS Simple, effective, reliable, compliant. Problem-free performance - that's the beauty of Forgeweld's composite bonded underground storage tanks. Combining the structural integrity of 6 mm SABS Grade 355JR carbon steel plate with the corrosion resistance of a 2,5 to 3 mm Fibreglass Reinforced Polyester (FRP) shell, these tanks have high tensile strength and impact properties and are recommended for the safe storage of all blends of conventional and oxygenated fuels, including methanol.

PERMATANKS This revolutionary tank design, known as the "jacketed tank", was developed in the mid-1980s by the Permatank Corporation of the USA. It pioneered a lasting solution to environmental concerns. Forgeweld is the official supplier of Permatank® to Chevron South Africa. Forgeweld has been manufacturing the Permatank® since 1992. Today we are one of the world's major Permatank® producers and our market is growing. Forgeweld's Permatank® carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.

DOUBLE-WALLED STEEL TANKS Forgeweld Double-walled steel underground storage tanks (USTs) use secondary containment technology to banish any concerns over environmental contamination caused by leakage. The tanks consist of a steel primary tank enclosed within a steel secondary tank. A 25-mm interstice is formed between the inner and outer tank. After tank installation, the interstice is filled with a mixture of water and glycol. Any loss of liquid level or pressure activates an alarm. The glycol mixture also provides insulation and temperature control.

PIPING

Forgeweld is proud to be the preferred South African agents and distributors for NUPI products. NUPI s.p.a. Bologna, Italy, is one of Europe's leading manufacturers of integrated piping and jointing systems for use in buried applications handling various grades of petroleum fuels and alcohols. Extensive research and NUPI's 25-year experience in thermoplastic processing have resulted in the SMARTFLEX and SMARTCONTAINMENT piping systems.

ANCILLARY EQUIPMENT

MANHOLE AND FRAME: This strong university-tested design consists of a cast iron frame and a lid fabricated from diagonally woven fibreglass matting.

SAM1 PISTON PUMP: A cost-effective hand pump, constructed from lightweight aluminium and fitted with a replaceable stainless steel liner which provides the piston with a corrosion-resistant surface on which to operate.

K33 FLOWMETER: A reliable, cost-effective nutating disc meter for measuring quantities of dispensed fuel or lubricant. It consists of an aluminium metering chamber and polybutylene nutating disc with an aligned 1" G inlet and outlet and mechanical readout device with rotating wheels. It is easy to install and calibrate and offers four different flow configurations. In litre and gallon units with 3-digit subtotals and 6-digit totals.

FXV LEAK DETECTOR: It offers a variety of tests, including the fastest line test for hourly monitoring available, without spilling any product or interrupting business at the fuel dispense - simply snap the FX tester onto the FX2V with the convenient snap tap connectors. FXV leak detectors are Underwriters Laboratory listed and third party certified to guarantee performance and durability.

LADDERS/WALKWAYS: To ensure easy access, these can be manufactured to suit your tank sizes and layout. Also available in standard dimensions.

For more details or to order, please contact your nearest Forgeweld office.

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ABOVEGROUND STORAGE TANKS
BULK TO FARMER TANKS



Seasons may come and go, but
these tanks just keep going.

Tough enough to handle the rough, Forgeweld's diesel tanks have become a familiar sight on the South African landscape. Generations of farmers have relied on the workmanship that goes into building these cylindrical storage tanks that just last and last.

forgeweld

LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.





Durable

For a sure-sealing weld, lap joints are applied by MIG welding. This reduces the number of critical parameters in the weld to just two - the two faces of the parts where they overlap, and here the tolerances are reassuringly high.

Warranty policy

Forgeweld's Bulk to Farmer storage tank carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.

Low maintenance

Maintenance is virtually zero. The exterior is finished with a

tough shield of heat-reflective silver paint. The tanks are single-walled cylinders, but could be fabricated with a double wall, should you require it.

Versatile

The tanks are supplied in the dimensions shown below on an option of a 1, 2 or 3 m stand.

SANS compliant

Forgeweld's Bulk to Farmer tanks comply with SANS 10131, your further assurance of a tank that will outlast the seasons, year in and year out.

Tank dimensions and capacity

VOLUME litres	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
1 000	1 150	1 154	1 070	2	1 111	106
2 000	1 150	1 154	2 140	2	2 222	168

For more details or to order, please contact your nearest Forgeweld office.

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ABOVE GROUND STORAGE TANKS
CRADLE-MOUNTED & SKIDS-MOUNTED TANKS

Diesel prices go up and down,
but our tanks go and stay
where you need them.

Either mounted on cradles fixed to the floor,
or fitted with skids to enable easy repositioning where required on
site, the tanks in this range are built to withstand the onslaught of the
elements and manhandling over the roughest terrain.

forgeweld

LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.





Tough

Constructed in hardwearing carbon steel, these are Forgeweld's trusty workhorses for the fuel and construction industries.

Submerged arc welding, performed under a blanket of flux, ensures strong, clean welds with deep penetration and no spatter. Welds produced are sound, uniform, and corrosion resistant - perfect for long-term service in the field.

Warranty policy

Forgeweld's Cradle-mounted and Skids-mounted storage tanks carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.

Low maintenance

Maintenance is virtually zero. The exterior is finished with a tough shield of heat-reflective paint. The tanks are single-walled cylinders. The interiors can be coated or painted, on request.

Sizes to suit your needs

The tanks are supplied in the dimensions shown below, delivered by independent installers, either on skids or cradles.

SANS 10131 compliant

Like all Forgeweld's aboveground tanks, these vessels comply with SANS 10131 standards, your assurance of a tank that's tougher than tough.

VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4.5	1 810	1 817	1 900	6	4 862	934
9	1 815	1 817	3 700	6	9 468	1 430
14	1 815	1 817	5 500	6	14 074	1 913
23	2 318	2 330	5 500	6	23 210	2 309
30	2 318	2 330	7 300	6	30 806	2 928
46 Long	2 318	2 330	10 900	6	45 999	4 166
46 Dumpie	2 870	2 882	7 800	6	48 547	4 100
60	2 870	2 882	9 600	6	60 191	4 987
83	2 870	2 882	13 200	6	83 481	6 519
100	3 100	3 112	13 550	6	100 035	7 516

For more details or to order, please contact your nearest Forgeweld office.

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Forgeweld Fireguard™. The new generation of fire-rated self-bunded fuel storage tanks.

Forgeweld Fireguard™ tanks are specified for the storage of all blends of oxygenated fuels, including methanol.

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LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.



A steel primary containment tank, contained within a steel secondary tank, with a unique, lightweight insulation technology called Steel Tank Institute of America (STI) Ingredient "B", in between. This is the innovative design of Fireguard™ - a technology that is patented by the STI. Forgeweld, a member of the STI, is the exclusive manufacturer and distributor of Fireguard™ in the Southern Hemisphere.



Will last longer

Fireguard™ technology far outstrips that of concrete-encased ASTs. The exterior steel wall provides superior weatherability and low-cost maintenance. Unlike with concrete, cracking and spalling will never be a problem.

75% lighter - lower transport costs

The thermal insulating material is super lightweight - 75% lighter than concrete, it reduces shipping, installation and relocation costs.

Sized to suit your needs

Fireguard™ tanks come in many more size options than most competitive brands, as well as cylindrical or rectangular design, compartmentalised configurations, concrete pad designs for sites in Seismic Zone 4 and tank supports manufactured in accordance with STI's UL Listings.

Fireguard™ exceeds safety standards

Both the primary and secondary tanks are equipped with emergency vents, an important safety feature that reduces the risk of explosion in the event of fire.

Fireguard™ tank technology has proven safety features:

- UL 2085 Four-hour Fire Rating - The primary tank has a tested ability to maintain an internal temperature below a specified limit for four hours, reducing the risk of an explosion during a fire.
 - Ballistics Protection - A tested ability to prevent penetration of bullets into the primary tank, thereby rendering it ballistics resistant.
 - Impact Protection - A tested ability to prevent leakage of the primary tank if impacted by a vehicle, lessening the risk of a spillage.
 - Hose Stream Resistant - A tested ability to prevent leakage of the primary tank or damage to the insulation material when impacted with a stream of water (a fire hose) for two and a half minutes, making the storage of flammable liquids safer.
- The tanks are supplied in the dimensions shown above. Deliveries can be arranged.



Compliance

Fireguard™ has been fully tested by the US standards authority Underwriters Laboratory in accordance with UL 2085 and has two listings: both the Fire-resistant Type and Protected Type listing for Insulated Secondary Containment Aboveground Storage Tanks.

South African National Standard (SANS) 10131:2004 allows the use and installation of Forgeweld Fireguard™ Tanks in South Africa.

Choose your options

Forgeweld Fireguard™ ASTs are fitted with top manholes and fittings and bosses to accommodate filling, dipping and suction outlets. Units can be provided with an access ladder or platform.

Top-rated

The primary and secondary tanks of Forgeweld Fireguard™ ASTs are manufactured from South African carbon steel plate complying with Grade 335JR. The external surface of Forgeweld Fireguard™ ASTs is usually white epoxy but this can be modified according to specific customer orders.

Tank dimensions and capacity

VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4,5	1 805	1 817	1 900	6	4 862	2 585
9	1 805	1 817	3 700	6	9 468	3 674
14	1 805	1 817	5 500	6	14 074	4 848
23	2 318	2 330	5 500	6	23 210	6 785
30	2 318	2 330	7 300	6	30 806	8 762

For more details or to order, please contact your nearest Forgeweld office.

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ABOVEGROUND STORAGE TANKS
SELF-BUNDED TANKS



South Africa's tough choice - for safe, convenient, on-site storage and dispensing of hazardous liquids.

On site, on time and on spec for safety and eco-friendliness, Forgeweld self-bunded tanks are a popular choice for diesel depot's and construction sites. The tanks are transportable, ready to use anywhere and can be easily repositioned on site.

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LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.





Environment-friendly performance

Constructed from durable carbon steel, each tank-within-a-tank carries a 12-month workmanship guarantee. The tanks are positioned in either a round or a square bund.

Access is by ladder to the manhole. Each tank comes fitted with two shut-off valves, one 50 mm vent, a flange ball valve for dispensing and an external pump for receiving. As an option, an external pump can be mounted to the tank for receiving and dispensing.

Built tough

Submerged arc welding, performed under a blanket of flux, ensures strong, clean welds with deep penetration and no spatter. Welds

produced are sound, uniform, and corrosion resistant; these tanks are built to last.

Low maintenance

Maintenance is virtually zero. The exterior of both the internal tank and the bund is finished with a tough shield of high-spec paint. The internal tanks are single-walled cylinders. The interiors can be coated or painted, on request.

The tanks are supplied in the dimensions shown below. Deliveries can be arranged.

Like all Forgeweld's aboveground tanks, these vessels comply with SANS 10131 standards, your assurance of safety and many years of no-nonsense service.

Tank dimensions and capacity

VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4,5	1 810	1 817	1 900	6	4 862	934
9	1 815	1 817	3 700	6	9 468	1 430
14	1 815	1 817	5 500	6	14 074	1 913
23	2 318	2 330	5 500	6	23 210	2 309
30	2 318	2 330	7 300	6	30 806	2 928
46 Long	2 318	2 330	10 900	6	45 999	4 166
46 Dumpie	2 870	2 882	7 800	6	48 547	4 100
60	2 870	2 882	9 600	6	60 191	4 987
83	2 870	2 882	13 200	6	83 481	6 519
100	3 100	3 112	13 550	6	100 035	7 516

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UNDERGROUND STORAGE TANKS
PERMATANKS



The petrochemical
industry's best value in
underground storage tanks.
Permatank®

Forgeweld has been manufacturing the Permatank® since 1992.
Today we are one of the world's major Permatank®
producers and our market keeps growing.

forgeweld

LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.



This revolutionary tank design, known as the "jacketed tank", was developed in the mid-1980s by the Permatank Corporation of the USA. It pioneered a lasting solution to environmental concerns. Permatank® double-wall tanks are not subject to rupture, cracking or the types of failure typical of other secondary containment systems. Forgeweld is the official supplier of Permatank® to Chevron South Africa.



Secondary containment: complete peace of mind

The Permatank® is a tough-as-nails 6 mm carbon steel (355JR) primary tank enclosed within a secondary containment tank of rock-hard Fibreglass Reinforced Polyester Resin (FRP).

The steel inner tank ensures structural strength and product compatibility (any type of fuel can be stored) while the FRP outer tank provides corrosion resistance and dependable secondary containment. Shipped with a factory installed Precision Test System to ensure double-wall integrity, it is designed for peace of mind.

The hermetically sealed outer tank of FRP completely isolates the primary tank from the underground environment. This coating is checked for discontinuities by a 35 000 volt holiday test over the entire surface. Once the coat has cured, a vacuum of 75 kpa is drawn on the interstice to provide moisture-proof tightness and longevity.

Your reassurance of long-life performance

- The outer tank is totally seamless. It covers 100% of the exterior of the inner steel tank.
- 100% corrosion protection is assured, without the need for sacrificial anodes.
- Tank openings are flush with the top and are laminated up to the threads. This eliminates the need for dielectric fittings.
- To prevent adhesion between the FRP and steel, a lining of standoff mesh and polyester film forms an interstitial.
- The tough FRP tanks are 100 mm thick.
- Factory-installed insulation pads protect the tank against any damage during transport or on-site storage.
- Striker plates under each tank opening provide interior corrosion protection.
- Zinc anodes eliminate the possibility of corrosion cells forming.

Exceeding the World's Toughest Standards

Our Permatanks® conform to and exceed some of the toughest standards in the world:

- UL 1746 Part III (Jacketed Tank): Underwriters Laboratory Standard for External Protection System for Steel Underground Tanks: this code makes it mandatory to provide monitoring of the interstice for leaks.
- SANS 1535 - Glass Reinforced Polyester Coated Steel Tanks for the Underground Storage of Hydrocarbons and Oxygenated Solvents Intended for Burial Horizontally: Regular inspections and tests by the SABS ensure our compliance with this standard.
- SABS 1531 Grade 355JR: the steel used in the manufacture of our composite tanks conforms to this specification (equivalent to Grade 43A of the applicable British Code).

Warranty policy: All storage tanks manufactured by Forgeweld Engineering (Pty) Ltd carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.



- No cathodic protection is required.
- Removable fitting lugs require zero FRP touching up or repair in the field.
- Reusable. Can be relocated.
- Multiple compartment tanks can be manufactured to specifications.

The most effective leak detection system

- Permatank® comes installed with its own integral precision test system that exceeds NFPA 30 standards, making it today's most sensitive leak detection technology available.
- It provides two-in-one monitoring: vacuum and liquid leak detection. It is triggered by the presence of both water and petroleum fuels.

- Thanks to continual self-monitoring, no field testing of the tank is needed prior to installation, which is a cost-efficiency.
- The Permatank® vacuum monitoring system consists of a vacuum gauge and conduit, both made of stainless steel.
- The system is shipped on the tank, ready for field installation.
- It is fully adjustable and can be adapted for remote service, up to 400 metres.
- The system is sealed for tamper-proof reading of the gauge. The capability for optional secondary monitoring is built in.

Sizes

The tanks are supplied in standard sizes ranging from 5 m³ to 45 m³ but larger units can be manufactured on request.

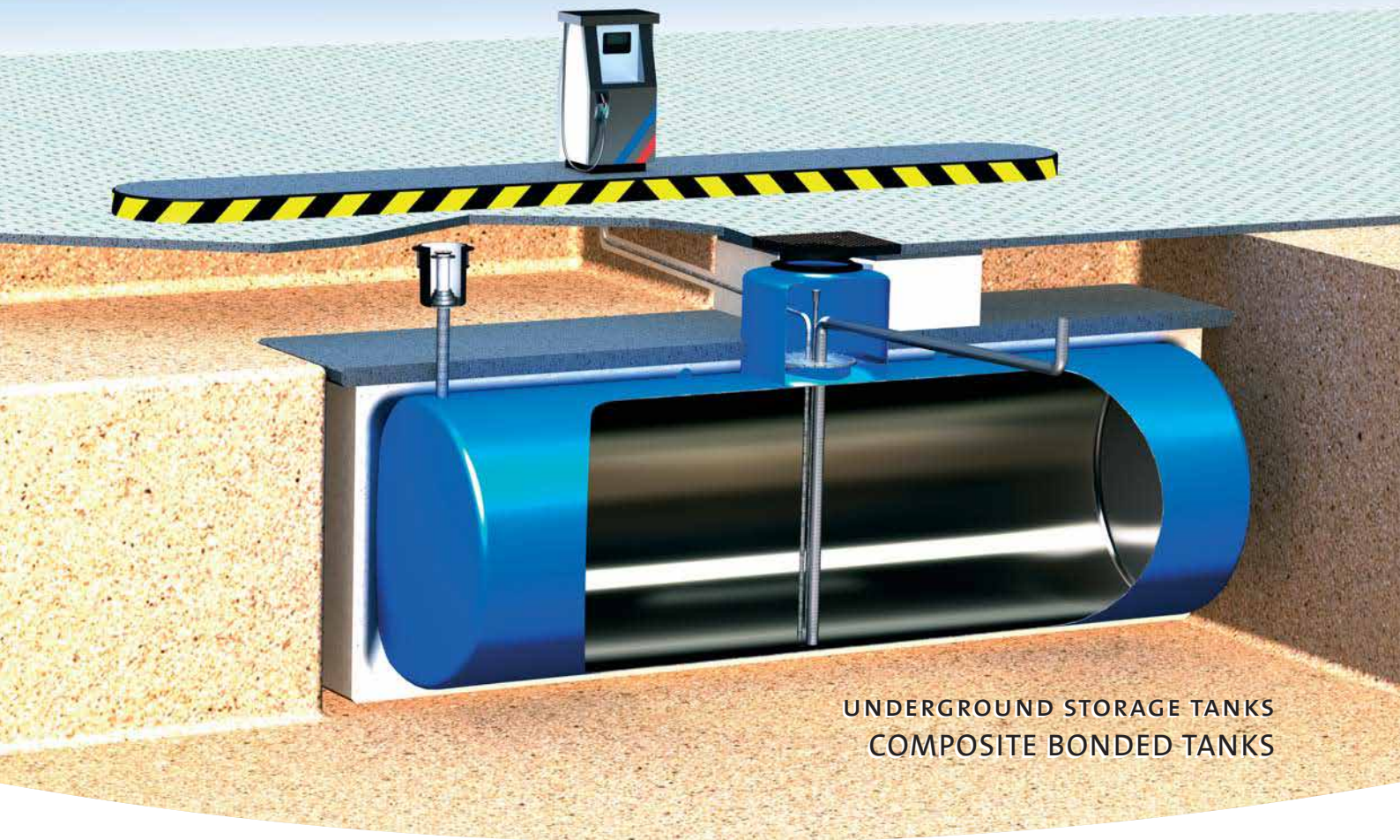
Tank dimensions and capacity

VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4,5	1 810	1 817	1 900	6	4 835	1 107
9	1 810	1 817	3 600	6	9 161	1 600
14	1 810	1 817	5 500	6	13 996	2 146
23	2 318	2 330	5 500	6	22 851	2 921
30 Long	2 318	2 330	7 200	6	30 384	3 505
30 Dumpie	2 870	2 882	4 500	6	29 112	3 235
46 Long	2 318	2 330	10 800	6	45 576	4 807
46 Dumpie	2 870	2 882	7 200	6	46 579	4 360
60	2 870	2 882	9 800	6	60 164	5 285
83	2 870	2 882	13 160	6	83 150	7 009

For more details or to order, please contact your nearest Forgeweld office.

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UNDERGROUND STORAGE TANKS
COMPOSITE BONDED TANKS

The strength of steel
meets the corrosion resistance of
polyester in one supertough
storage tank.

Problem-free performance without any external corrosion
monitoring - that's the beauty of Forgeweld's composite
bonded underground storage tanks.

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LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.



Combining the structural integrity of 6 mm SABS Grade 355JR carbon steel plate with the corrosion resistance of a 2,5 to 3 mm Fibreglass Reinforced Polyester (FRP) shell (Spec UL1746), these tanks have high tensile strength and impact properties and are recommended for the safe storage of all blends of conventional and oxygenated fuels, including methanol.



Built to high spec

The steel tanks are built with shell-and head-thickness to SANS 1535/UL 58 specifications.

Before application of the GRP laminate coating, the external surface of a tank shall be blast-cleaned to preparation grade SA 2,5, as described in ISO 8501-1 (as per SANS1535 standard). A 2.5mm coating of isophthalic resin, reinforced with chopped fibreglass, is applied to the entire external surface of the tank. (UL 58)

The finished cladding is quality checked by a 35 000 volt holiday test over 100% of its surface to ensure that there are no discontinuities in the coating.

Forgeweld composite tanks are fully insulated from the surrounding soil and are equipped with isolating bushes. Neither cathodic protection nor corrosion monitoring is required.

Tank dimensions and capacity

VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4,5	1 810	1 817	1 900	6	4 862	860
9	1 815	1 817	3 700	6	9 468	1 342
14	1 815	1 817	5 500	6	14 074	1 826
23	2 318	2 330	5 500	6	23 210	2 231
30	2 318	2 330	7 300	6	30 806	2 850
46 Long	2 318	2 330	10 900	6	45 999	4 123
46 Dumpie	2 870	2 882	7 800	6	48 547	3 824
60	2 870	2 882	9 600	6	60 191	4 592
83	2 870	2 882	13 200	6	83 481	6 124
100	3 100	3 112	13 550	6	100 035	7 179



Adaptable to your needs

Depending on your requirements, Forgeweld composite tanks are fitted with lifting lugs and flanged or dished ends. Top-fitted 745 mm diameter manholes incorporate filler, dip, breather and suction (pump) apertures. A forecourt manhole can be supplied, should you require this. Drop pipes are also fitted to order.

Warranty policy

All storage tanks manufactured by Forgeweld Engineering (Pty) Ltd carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.

Top quality and safety standards

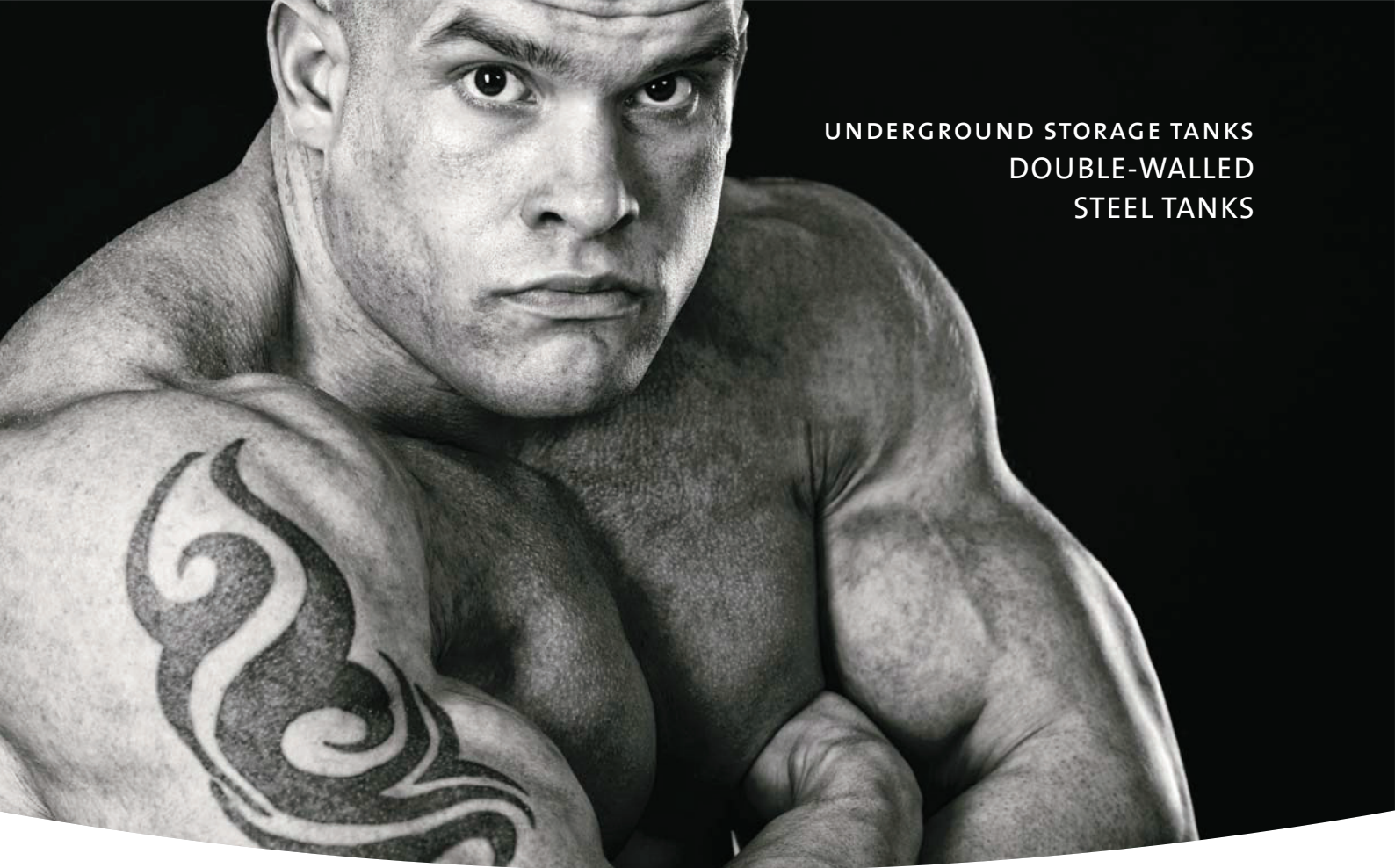
Forgeweld composite tanks are manufactured to the very highest standards, conforming to and even exceeding the requirements of the world's top standards authorities:

- UL 1746 Part II - Composite Tanks: This standard covers the material testing and application of the 2,5 mm FRP coating applied to the external surface of every Forgeweld composite tank. In terms of this standard, the application of a 2,5 mm FRP coating allows manufacturers to reduce shell tank thickness. We don't exercise this concession, thus ensuring that the structural strength and integrity of our composite tanks exceed that called for by this standard.
- SANS 1535 - Glass Reinforced Polyester Coated Steel Tanks for the Underground Storage of Hydrocarbons and Oxygenated Solvents Intended for Burial Horizontally: Regular inspections and tests by the SABS ensure our compliance with this standard.
- SABS 1531 Grade 355JR: the steel used in the manufacture of our composite tanks conforms to this specification (equivalent to Grade 43A of the applicable British Code).

For more details or to order, please contact your nearest Forgeweld office.

LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963. FORGEWELD'S MISSION IS TO BE A LEADER IN FUEL STORAGE SYSTEMS BY PROVIDING ENVIRONMENTALLY FRIENDLY, INNOVATIVE, COST-EFFECTIVE, INTERNATIONALLY ACCREDITED PRODUCTS AND SERVICES.

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UNDERGROUND STORAGE TANKS
DOUBLE-WALLED
STEEL TANKS

When you need a tank that's
built tough like a tank, call
in the heavyweights.

Built to last: double-walled steel for twice the peace of mind. Forgeweld Double-walled steel underground storage tanks (USTs) use secondary containment technology to banish any concerns over environmental contamination caused by leakage.

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LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.





The tanks consist of a steel primary tank enclosed within a steel secondary tank. A 25-mm interstice is formed between the inner and outer tank. After tank installation, the interstice is filled with a mixture of water and glycol. Any loss of liquid level or pressure activates an alarm. The glycol mixture also provides insulation and temperature control.

A 2,5 mm composite (Fibreglass-reinforced Polyester Resin or FRP) or 0,8 mm polyurethane coating can be applied to the outer steel wall to provide corrosion protection.

Convenient access and fuel dispatch

Fitted with a 745 mm underground manhole. Optional forecourt manhole. Manholes incorporate fittings and unions for filler, dip and breather, and suction (pump) apertures. 25 mm Sockets for monitoring the interstice topside at each end. Dished or flanged ends. Lifting lugs.

Tough enough to take on the world

The 6 mm carbon steel plate is South African made, complying with Grade 335JR. Both the inner and outer tanks are submerged arc welded for rugged strength.

As well as being certified by the United States UL 58 standard, our quality control measures are certified by independent auditors. Forgeweld's Double-walled storage tank carries a warranty against defective materials and workmanship for a period of 24 months from the date of installation.

Standard sizes are shown below. Tanks can be produced to order, but we recommend 40 m² as the maximum size due to mass considerations involved in transporting double-wall steel USTs; they are heavier than a Permatank® Jacketed or Composite UST of the same size.

Tank dimensions and capacity

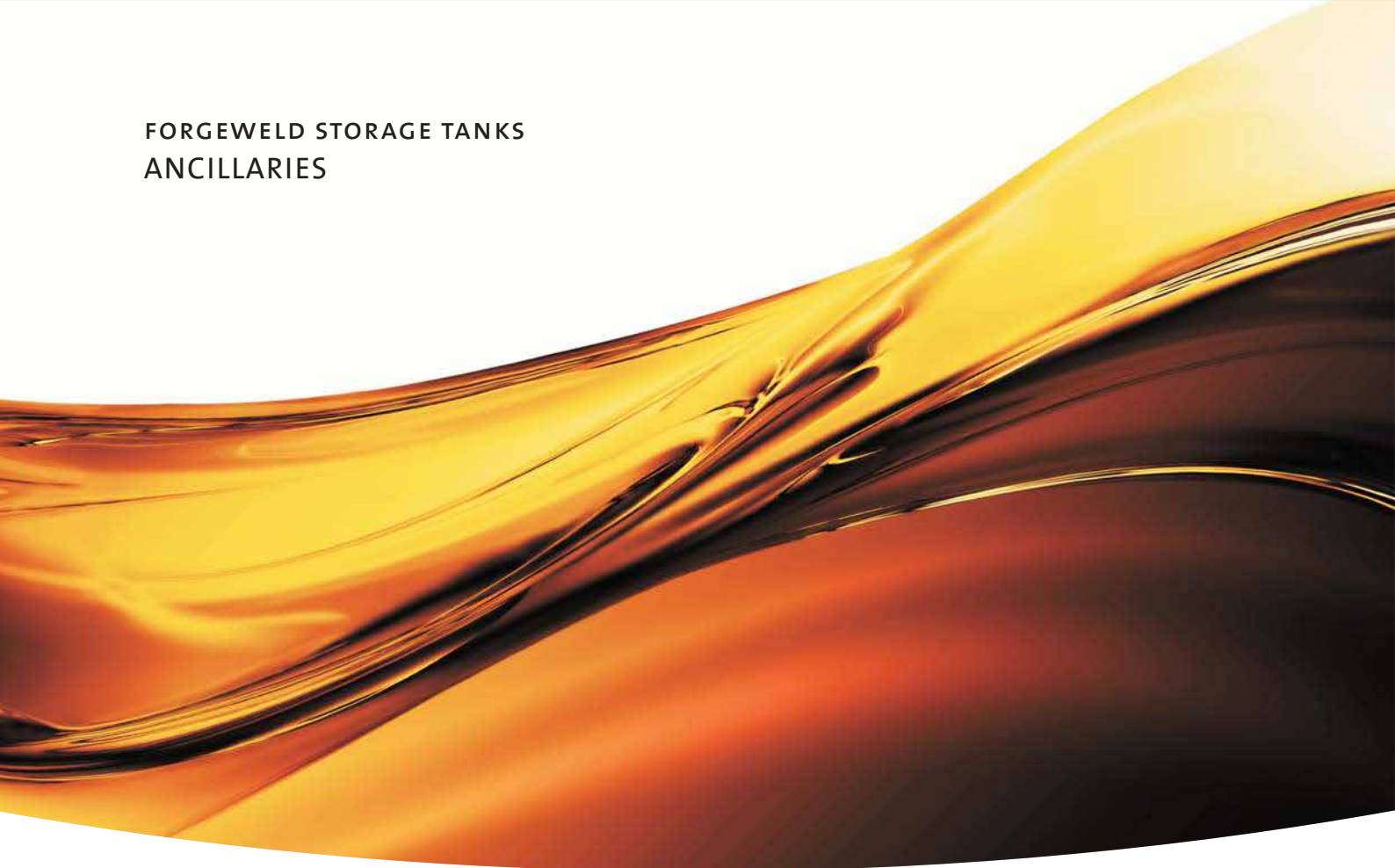
VOLUME m ³	IN. DIAMETER mm	OUT. DIAMETER mm	OVERALL LENGTH mm	SHELL THICKNESS mm	CALC. CAPACITY litres	APPROX. WEIGHT kg
4,5	1 810	1 817	2 050	6	4 515	2 090
9	1 810	1 817	3 650	6	9 024	3 054
14	1 810	1 817	5 350	6	13 876	4 017
23	2 318	2 330	5 350	6	22 442	5 027
30	2 318	2 330	6 100	6	29 515	6 265

For more details or to order, please contact your nearest Forgeweld office.

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FORGEWELD STORAGE TANKS
ANCILLARIES



To ensure optimum performance from your Forgeweld tanks, insist on genuine Forgeweld ancillaries.

To keep your investment in Forgeweld tanks delivering at its peak, we supply a range of accessories and ancillary equipment.

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LEADERS IN STEEL TANK MANUFACTURE, SINCE 1963.



A number of our ancillaries are manufactured under licence from some of the USA and Europe's leading suppliers.



Overfill Device

Manhole and frame

This strong, university-tested design consists of a cast iron frame and a lid fabricated from diagonally woven fibreglass matting.

SAM1 piston pump

A compact and cost-effective hand pump, constructed from lightweight aluminium. It is fitted with a replaceable stainless steel liner, which provides the piston with a corrosion-resistant surface on which to operate.

The pump's modern design offers the following features:

- Teflon impregnated Kevlar packing
- Nozzle boot and barrel bung directly into body
- The body has a 1" inlet and 3/4" outlet
- High vacuum ensures self-priming
- High capacity: 76 litres (20 gallons) per 100 strokes
- Flow can be reversed by removing the pin and rotating the piston through 180°
- The pump can be disassembled easily without disturbing piping to clean the strainer or to service
- Can be provided with an accurate, cost-effective nutating disc flow meter
- Compatible with a wide variety of liquids including gasoline, oils and solvents
- Underwriters Laboratory listed models are available to meet OSHA requirements

K33 flowmeter

A reliable, cost-effective nutating disc meter designed to measure quantities of dispensed fuel or lubricant. It consists of an aluminium metering chamber and polybutylene nutating disc with an aligned 1" G inlet and outlet. It has a mechanical readout device with rotating wheels. It is easy to install and calibrate



Dispenser Sump

(subtotals can be reset) and offers four different flow configurations.

Available in litre and gallon units with 3-digit subtotals and 6-digit totals.

- Flow rate: 20-120 litres/minute
- Precision: +1% of flow range after calibration
- Maximum operating pressure: 10 bars (Bursting Pressure: 30 bars)
- Resolution: 0.1 litre

FXV leak detector

Built to provide superior performance and a variety of tests, including the fastest line test for hourly monitoring available, without interruption of business. Simply snap the FX tester onto the FX2V with the convenient snap tap connectors.

FXV leak detectors are Underwriters Laboratory listed and third party certified to guarantee performance and durability.

- Two models: the FX1V and its successor the FX2V
- Constructed from advanced materials
- Easy to install and troubleshoot - no special tools required
- Increased static head capability and reduced nuisance tripping
- Guaranteed for 24 months from the manufacturing date to detect at a rate of 11.4 lph at 69 kPa
- Fast test time enables operation in areas of extreme temperature variability
- Can be adapted to applications using high-resilience lines, e.g. NUPI flexible piping
- Designed to handle up to 3.4 m of static-head, facilitating performance on sites with a significant gradient between tank and dispenser
- Compatible with a wide variety of fuels including diesel

All our products are top quality, and superior performers in own right. Use them with confidence and peace of mind.



Eco Safe Spill Container



Eco Safe Sump

OCIO level monitoring system

Made by Piusi Fluid Handling Technology, Italy, this is an innovative system for monitoring fluid levels inside petrochemical storage tanks. OCIO does this by detecting the static pressure generated by the fluid level inside the tank by means of a small pipe inserted into it. The fluid level (volume) is then displayed on its monitor, enabling continuous monitoring of the storage tank for product leakage.

The OCIO level monitoring system is supplied with easy-to-use software which enables the operator to calibrate the instrument and to set the display as fluid level (cm/inches), volume (litres/gallons) or percentage of total capacity, to define the maximum and minimum level alarm, the level of indication and unit of measurement.

Quantum V2 fixed speed submersible turbine pump

Today's fast-paced world means dispensing more fuel more quickly. The Quantum V2 is a two horsepower, fixed speed submersible packed with high-powered features, ensuring that your forecourt keeps moving.

Its superior flow path means reduced flow restrictions, making it super-fast. In fact, it delivers the highest flow rate of any 4" fixed speed submersible turbine pump on the market, and is competitive with all variable speed options.

It offers performance and affordability:

- substantially lower installation costs
- 15% lower system costs
- 65% lower replacement controller costs
- competitive replacement pump/motor costs
- competitive power consumption at one fuelling point but less power consumption at six fuelling points

For more details or to order, please contact your nearest Forgeweld office.

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Forgeweld sumps and spill containers

Reduce any spillages which might occur as a result of routine installation, maintenance or filling procedures by making use of the following effective Forgeweld products:

Forgeweld containment sump (tank sump) - Designed to contain any spills that might occur in underground storage tank manholes, for example leaks at the check valve exit or those that occur when changing submersible or fitting leak detector devices.

The Forgeweld containment sump is manufactured from LDPE (lower-density Polyethylene) 2 mm thick. It's robust enough to stand up to the pressure of compacted soil in which it's buried and it's constructed from two halves for easy transportation, handling and installation. Accessories include Forgeweld entry bolts and an extension piece for tanks that are buried deeper than 1.3 m.

Forgeweld dispenser sump - Designed to contain spills underneath pumps/dispensers when changing equipment or fitting shear valves. Manufactured from LDPE (lower-density Polyethylene) 2 mm thick, designed to withstand side pressure.

Accessories include Forgeweld entry bolts and shear valves. All mounting brackets are galvanised to prevent corrosion.

Forgeweld spill container - Designed to capture and contain minor spillages that might occur when connecting and disconnecting hoses. Built to withstand high loading pressure. Fabricated from 34W mild steel with a solid cast iron top and polyethylene lid. Either a side or bottom inlet.

Accessories include a coupling for filling purposes.