Under Ground Water Tanks

Horizontal Water tanks

Vertical Water Tanks

Hot Press Panel Tank

Flexible Tanks

Flower Pots

Steel Tanks

Road Barriers

Pedal Boat

مصنع النجوم للخزانات البلاستيكية ذ.م.م
Stars Poly Storage Tanks Factory L.L.C

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E-mail : starspoly@yahoo.com, Website : www.starspoly.com

مصنع النجوم للخزانات البلاستيكية ذ.م.م
Stars Poly Storage Tanks Factory L.L.C

fabric solutions Australia pty ltd

AVON Flexible Storage Tanks – UAS

STEELFAB water solutions

aquabarrier systems limited

ABOUT US :

مصنع النجوم للخزانات البلا ستيكية (ذ.م.م.)

تأسس مصنع النجوم للخزانات البلاستيكية في مدينة دبي (دولة الامارات العربية المتحدة) عام 1998. لصناعة الأشغال البلاستيكية المتخصصة للأبنية مثل خزانات المياه ، حواجز الطرق، ومنتجات أخرى متعددة بواسطة نظام القولبة.

يعتبر مصنع النجوم للخزانات البلاستيكية جزءآ من مجموعة من المصانع التي تأسست في مدينة دبي بدولة الإمـارات العربية المتحدة، والتي تقوم بإنتاج العديد من المنتجات المتخصصة للأبنية:

• احمد عبدالله جمعة لصناعة الأنابيب البلاستيكية ولوازمها

وهو مصنع متخصص في صناعة الموصلات الخاصة بأنابيب الصرف من أليو بي في سي وفقا للمواصفات والمقاييس البريطانية الألمانية واليابانية.

• مصنع فارس للأنابيب البلاستيكية

وهو متخصص في صناعة الموصلات الأنابيب التي تتحمل الضغط العالي وفقا للمقاييس و المواصفات البريطانية – الألمانية واليابانية، بالإضافة إلى صناعة الخراطيم المرنة، وخراطيم المياه، وخراطيم الشفط بأحجامها المختلفة.

Stars Poly Storage Tanks Factory (L.L.C.)

Was established in Dubai (United Arab Emirates) in 1999, to manufacture Plastic Products for buildings such as Storage Tanks, Road Barriers, Cones and other rotomolded products.

Stars Poly Storage Tank Factory is a part of a group of factories based in Dubai

(United Arab Emirates) manufacturing different products for building, our other enterprises are:

• A. A. Juma Plastic Pipes & Fittings Industry Co. LLC

Specialized in manufacturing drainage material like UPVC pipes fittings according to

B.S. – DIN– JPS.

• Faris Plastic Pipes Factory.

Presser fittings as BS. – DIN – Flexible conduit – breaded hose – suction hose – safety helmet- chaim pad.

RAW MATERIAL :

3 LAYERS - The Production of the tank consist of three layers

1st Layer - White Color

UV stabilized polyethylene with food grade white master batch.

2nd Layer - Polyethylene Foam Black Color

This layer provides the following values:

- Thermal Insulation
- Improving Stiffness
- Prevent formation of fungus
- Prevent the bacterial growth

In addition to UV stabilizer added to the raw material, the black color is naturally acts as an additional UV Stabilizer and naturally food grad color.

3rd Layer - Polyethylene White Color

Works same as the first layer to be suitable for the storage of Potable Water.

4 LAYERS - The Production of the tank consist of four layers

1st Layer - White Color

UV stabilized polyethylene with food grade white master batch.

2nd Layer - Black Color

This layer provides the following values:

- Prevent formation of fungus
- Prevent the bacterial growth

In addition to UV stabilizer added to the raw material, the black color is naturally acts as an additional UV Stabilizer and naturally food grad color.

3rd Layer - Polyethylene Foam Clear Color

This Layer provides the tank the following values:

- Thermal Insulation
- Improving Stiffness

4th Layer - Polyethylene White Color

Works same as the first layer to be suitable for the storage of Portal Water.

4 LAYERS - The Production of the tank consist of four layers

1st Layer - White Color

UV stabilized polyethylene with food grade white master batch.

2nd Layer - Black Color

This layer provides the following values:

- Prevent formation of fungus
- Prevent the bacterial growth

In addition to UV stabilizer added to the raw material, the black color is naturally acts as an additional UV Stabilizer and naturally food grad color.

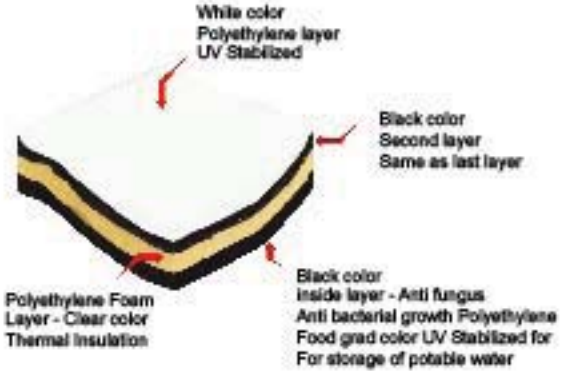
3rd Layer - Polyethylene Foam Yellow Color

This Layer provide the tank the following values:

- Thermal Insulation
- Improving Stiffness

4th Layer - Polyethylene Black Color

Works same as the first layer to be suitable for the storage of Portal Water.



VERTICAL WATER TANKS :

No.	Capacity US Gallon	Code. No.	Diameter Cm	Height cm	Manhole cm
1	50	SV05	71	59	41
2	100	SV10	80	89	41
3	150	SV15	92	93	41
4	200	SV20	99	106	41
5	250	SV25	103	125	41
6	300	SV30	105	142	45
7	400	SV40	123	134	41
8	500	SV50	135	145	41
9	600	SV60	136	160	45
10	700	SV70	149	165	51
11	800	SV80	153	177	45
12	900	SV90	155	185	51
13	1000	SV100	168	188	45
14	1200	SV120	168	206	45
15	1500	SV150	198	219	45
16	2000	SV200	204	236	51
17	2250	SV225	225	250	45
18	2500	SV250	211	263	51
19	3000	SV300	238	269	50
20	4000	SV400	273	302	51
21	4500	SV450	293	247	50
22	5000	SV500	288	310	50

VERTICAL WATER TANKS (SHORT PROFIL) :

No.	Capacity US Gallon	Code. No	Diameter Cm	Height cm	Manhole cm
1	600	SV60-SH	167	130	45
2	800	SV80-SH	215	115	41
3	1000	SV100-SH	215	124	45
4	1250	SV125-SH	215	145	45
5	1500	SV150-SH	215	170	50
6	3000	SV300-SH	250	250	51

HORIZONTAL WATER TANKS :

No.	Capacity US Gallon	Code. No	Diameter Cm	Height cm	Length cm	Manhole cm
1	100	SH10	79	73	105	41
2	150	SH15	78	74	118	41
3	200	SH20	88.5	84	129	41
4	250	SH25	92	89	138	41
5	300	SH30	102	103	156	41
6	400	SH40	113	110	169	41
7	500	SH50	118	114	181	41
8	600	SH60	133	137	201	45
9	800	SH80	139	137	210	45
10	1000	SH100	155	152	233	45
11	1250	SH125	161	162	230	51

UNDERGROUND WATER TANKS :

Underground Tanks :

- Very Strong Body
- Designed by Motion Technology
- Can carry load of 3000 kg
- Tested in Virtual Engineering Center Queens University of Belfast
- Guaranteed for 10 years
- Anti-fungus
- Anti-bacterial Growth
- Food Approved Material
- Fabulous Tank
- Beautiful Design

The Production of the tank consist of three Layers :

1st Layer Black color 3mm solid skin UV stabilized polyethylene with food grade black color is naturally acts as an additional UV stabilizer and naturally food grade color.

2nd Layer Polyethylene foam velar color 12mm this layer provide the following values:

- Thermal insulation.
- Improving stiffness.

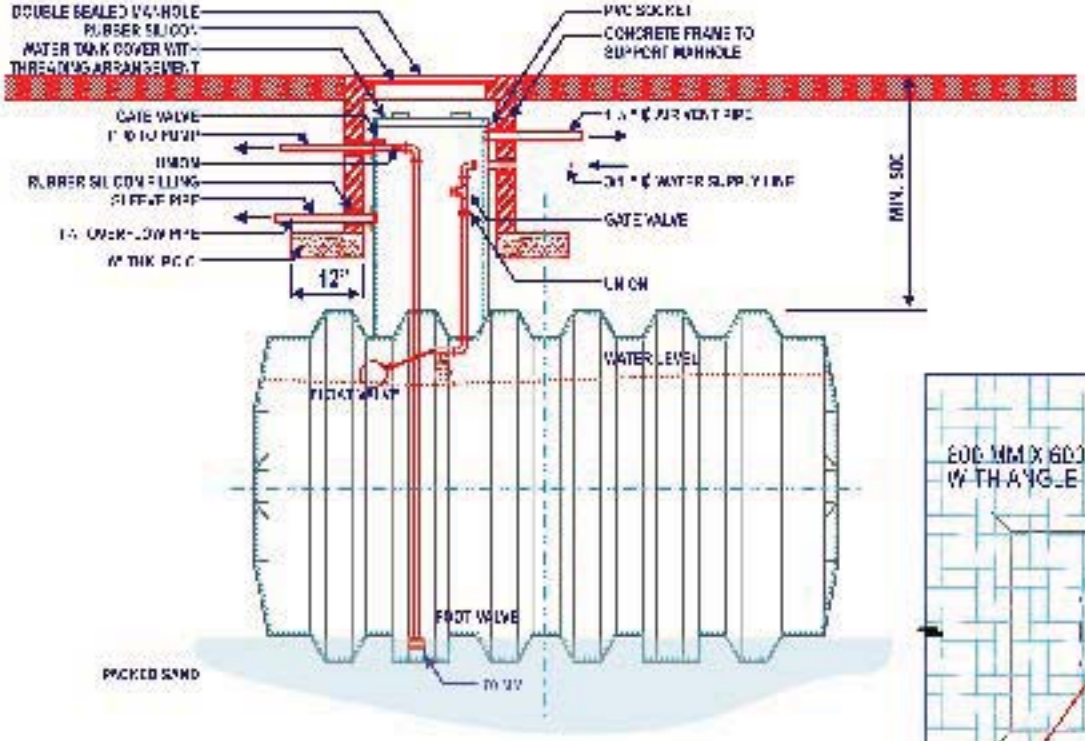
3rd Layer In additional to UV stabilizer added to the raw material, the (Polyethylene white color 1.8-2mm solid) works same as the first layer to be suitable for the storage of potable water.

Raw Material:

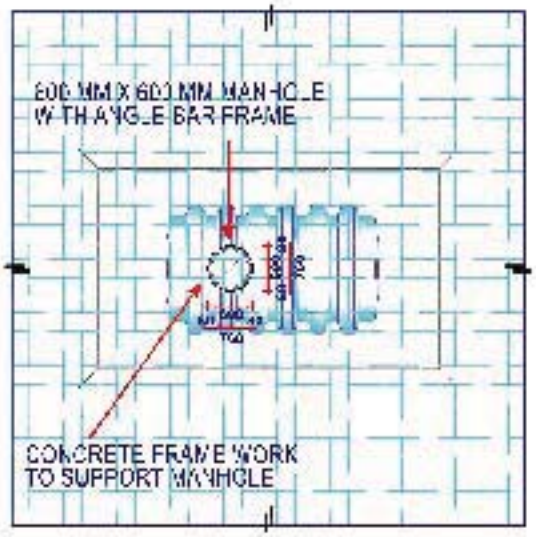
- Density of around 934 kg/m3.
- Tensile Modulus around 600 Mpa.
- Stress yield at around 16 Mpa.
- Max force around 1350 N/mm.

Measurements & Specifications :

Model	Capacity (US / G)	Litter (L)	Diameter (Cm)	Length (Cm)	Height (Cm)	Nick (Cm)	Manhole Size (Cm)	Weight (kg)	Body Thickness
SPHU 8	800	3000	148	248	148	50	41	150	20



PLAN

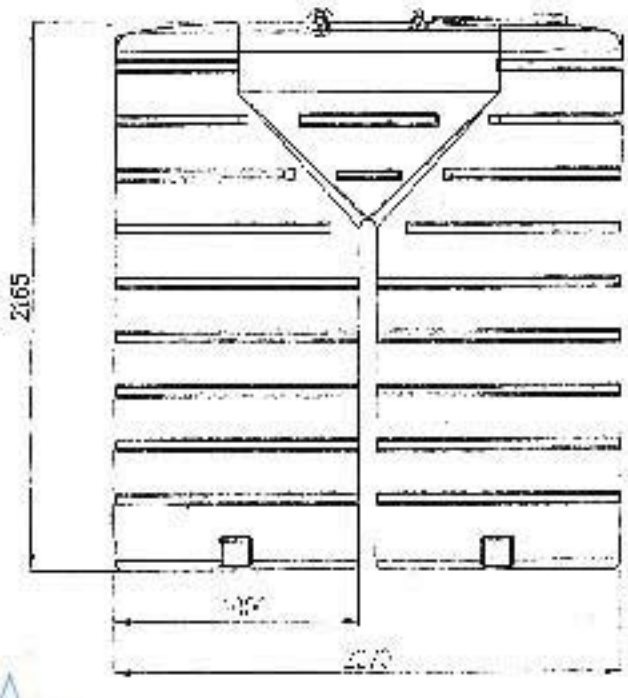


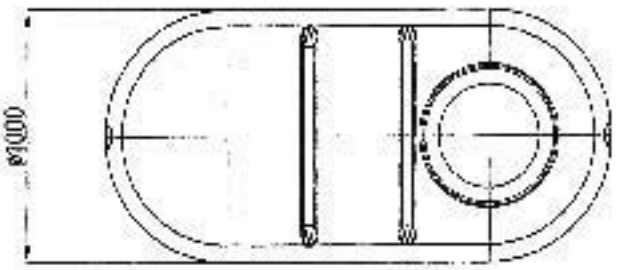
Under the assumption that the tank is mounted as per above drawing at depth of least 500 mm from top of tank till surface, the tank is able to take :

- A linear Load of 3000 Kg/m
- A total load for the tank of 7500 Kg

SLIM LINE WATER TANKS :

No.	Size Liter	Size Us/G	Height cm	Length cm	Width. cm	Leg Dia. cm
1.	4000	1000	216	207	100	100
2.	5000	1300	217	268	131	130

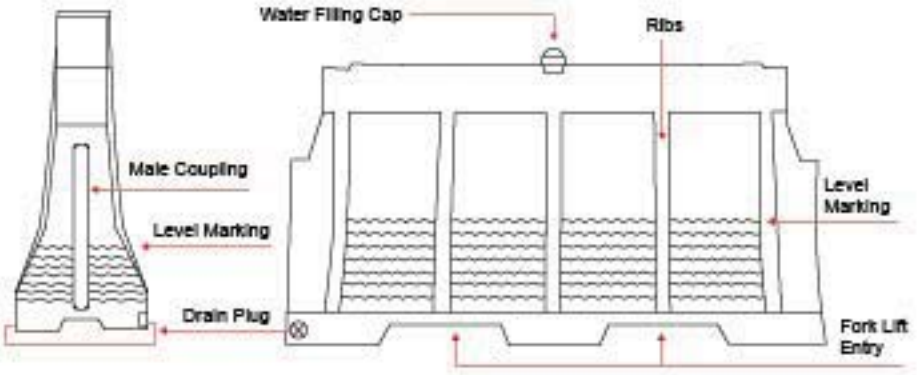




ROAD BARRIER :

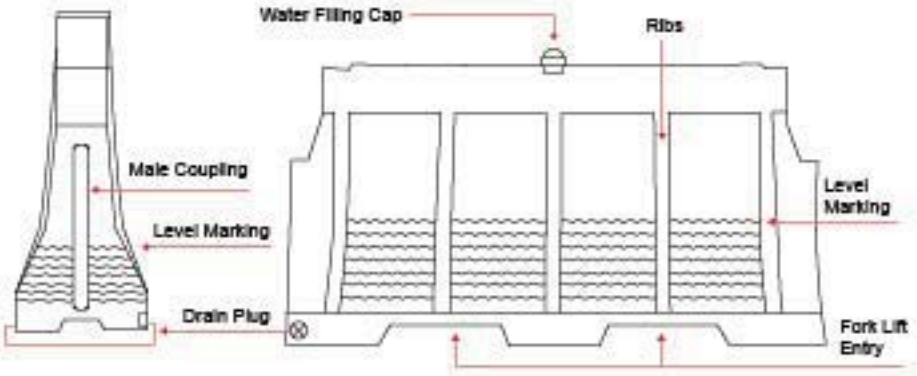
SPR 201
SELF JOINT

Height	100 cm
Lenght cm	200 cm
Top Width cm	20 cm
Bottom Width cm	52 cm



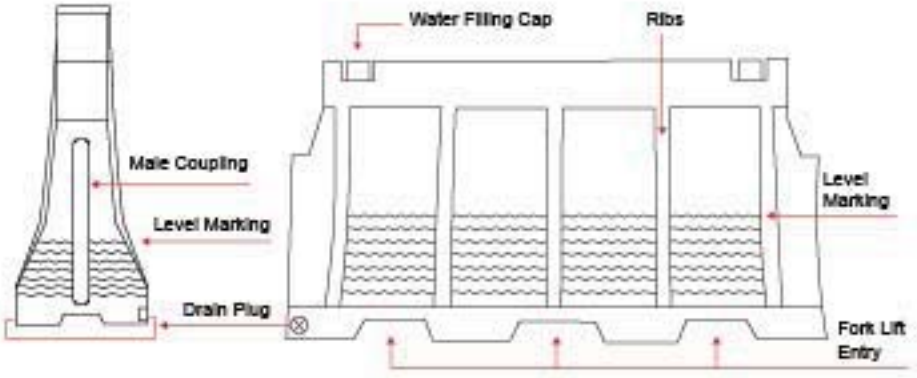
SPR 202
SELF JOINT

Height	85 cm
Lenght cm	200 cm
Top Width cm	20 cm
Bottom Width cm	52 cm



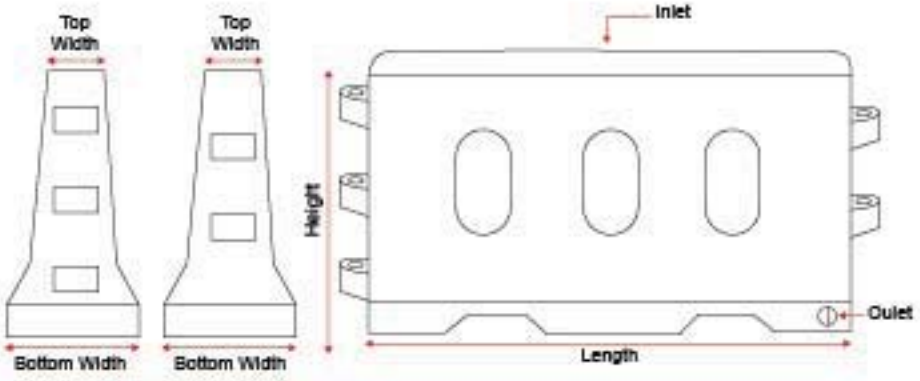
SPR 203
SELF JOINT

Height	85 cm
Lenght cm	200 cm
Top Width cm	20 cm
Bottom Width cm	52 cm



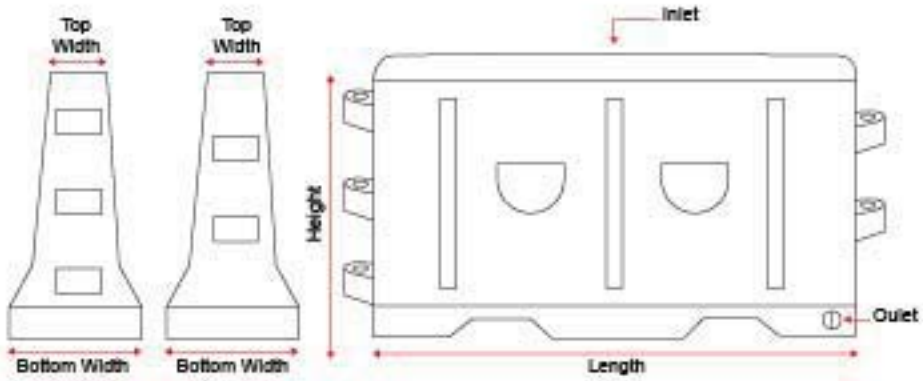
SPR 204
PIPE LOCK JOINT
FULL WATER CAPACITY

Height	95 cm
Lenght cm	200 cm
Top Width cm	18 cm
Bottom Width cm	60 cm



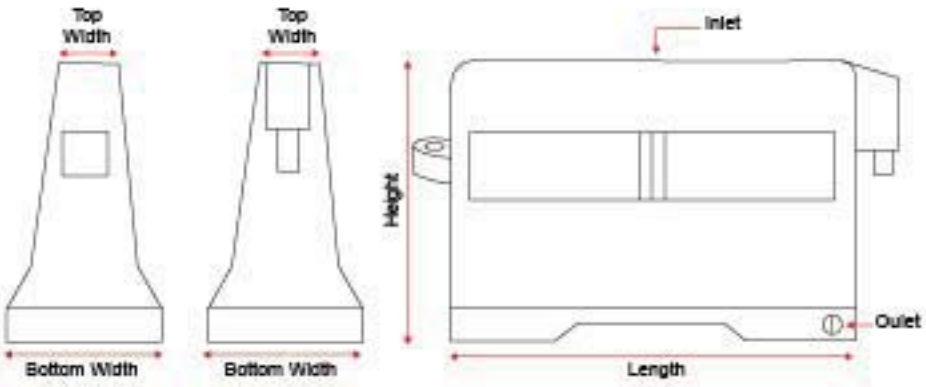
SPR 205
PIPE LOCK JOINT
FULL WATER CAPACITY

Height	95 cm
Lenght cm	200 cm
Top Width cm	20 cm
Bottom Width cm	52 cm



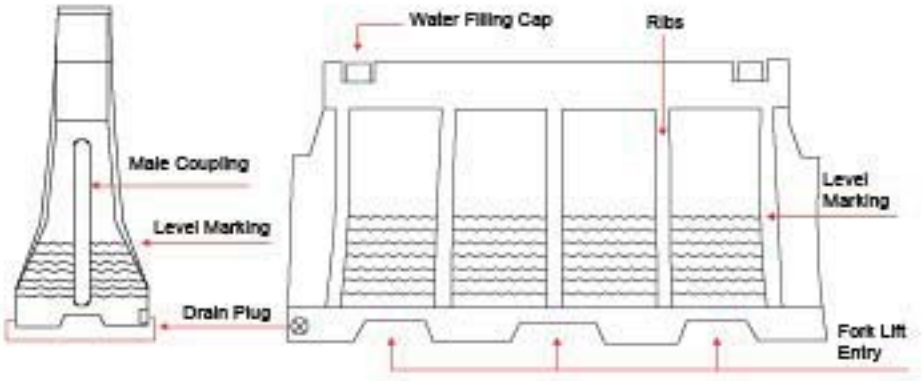
SPR 206
SMALL

Height	57 cm
Lenght cm	105 cm
Top Width cm	15 cm
Bottom Width cm	35 cm



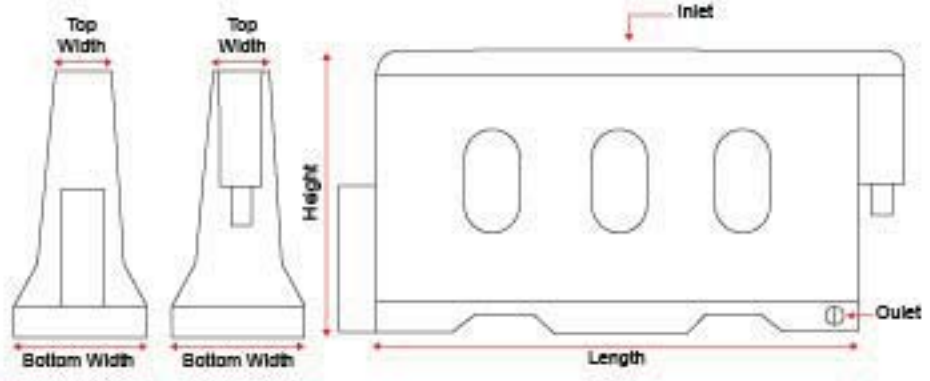
SPR 207
SELF JOINT

Height	75 cm
Lenght cm	105 cm
Top Width cm	15 cm
Bottom Width cm	35 cm



SPR 208
PIPE LOCK JOINT
FULL WATER CAPACITY

Height	85 cm
Lenght cm	184 cm
Top Width cm	15 cm
Bottom Width cm	50 cm



PEDAL BOAT :

Dolphin 3.3m

Description:-
3.3m length boat, suitable for use with pedal system or outboard engine power of maximum 4hp (3 KW) outboard, polyethylene construction.
Principal Dimensions:-
Hull Length LH = 3.3m
Beam BH = 1.9m
Hull Weight = 180 Kg
Design Category "D"
The Boat Designed for:

1. Allows 2 peddlers to enjoy pedal boating with great performance.
2. Allows carrying 4 Persons with peddlers.
3. Easy to fix Engine System.
4. Easy Handling.
5. Smooth Design.
6. Designed Operation in sheltered areas.
7. Designed Operation in Elsewhere when condition are fairly with small waves.
8. One piece molded tanks (NO JOINT).
9. Produced in colors that suites your needs.
10. Perfect for family fun.
11. It has a 5 year warranty on the hull and 2 year warranty on parts.

ISO9001, ISO1400

WRAS APPROVED PRODUCT

TÜV SÜD PSB Singapore

DH GRP SECTIONAL PANEL WATER TANK

DH Corporation Ltd.

DH GRP SECTIONAL PANEL WATER TANK

DH Corporation Ltd is the leader in Korea to manufacture Hot pressed GRP Sectional panel water tanks.

All the creatures on earth were born and grown by water which is the natural gift for human being and all sources of life as well.

DH Corporation Ltd has taken care the water related business as having the most imporant value and will try our utmost efforts for the improvement of human life through the advanced water storage technologies which featured by excellence in clean and hygienic with non-leakage.

We also have developed various types of water storage technolcgies which make our life more comfortable with convenience and supplied our products to all over the world.

Now DH corporation Ltd is going to get closer to our valuable customers by providing better services with quality products than the other companies have done

Certification Received

ISO9001: 2008 & ISO14001:2004 Quality Assurance Certification Received

- Panel tanks and relatec parts confirm water quality standards.

- Quality assurance certification
- Application for Water Regulations Advisory Scheme
- Certificate of Promising Expert Firm

DH GRP TANKS CHARACTERISTICS

The Special Feature of GRP Sectional Water Tank

Intensity and Durability	Glass fiber Reinforced Panel is molded under condition of high temperature and pressure to maintain the best endurarce. Since using stainless steel for inside structure and I IDG steel for outside, it shows best performance against erosion.
Excellent Hygiene	No corrosion from panels and prevent bacteria ncreasing by isolating outside light.
Waterlightness	The joints are sealed with special sealing tape especially developed for water tank.
Heat Insulation and Dewdrops Prevention	The heat insulation panel with 3 layer structured improves heat insulation effect. Protect water from dewdrops and minirrizes temperature variation of the stored water.
Best Size Stability	GRP Sectional water tank panels size is changeless from the outside conditon so assemble it accurately.
Various Capacity Design	Various sized panels are available in a limited space for the best way
Easy to Assembly and Transporting	GRP Sectional panels make construction time shorter. Standardization panels make easier to move, carry in and transfer.

GRP SECTIONAL WATER TANK

Design Standards

Item	Guaranteed Condition
Hydrostatic Pressure	Water Level (Height in Meters) X 0.1kgf/㎠(0.01MPa)
Horizontal Seismic Load	Kh = 2/3 (Load on GRP Tank itself)
Vertical Seismic Load	Kv = 1/3 (Load on GRP Tank itself)
Wind Force	255kgf/㎡(2.55[0] X [0]³ Mpa)
Wind Load	385kgf/㎡ • A (3.85 X10³ Mpa² A)
Snow Load	Snow Load = 30kgf/㎠
Component Materials	Vertical Weight 100kgf a: a point of 35cm between the fitting and the supporting pole.
Water Temperature	Suitable up to 50℃
Dusty Environment	Suitable up to 70mg/m³

Panel Physical Properties

Item	Unit	Physical Properties	Test Method
Density	kg/m³	1800	ISO1183
Tensil Strength	Mpa	100	ISO3268
Water Absorption Rate	%	>0.01	ISO62
Impact Strength	kj/m²	80	ISO179
Co-Efficient Thermal Expansion	deg.C	2.1X10⁻⁵	ASTM D696
Flexural Strength	Mpa	185	ISO178
Flexural Modules	Gpa	13	ISO178
Thermal Conductivity	Kcal/mh°C	0.23	
Barcol Hardness		55	KS M 4811:2005
Glass Fiber Content	%	31.4	KS M 4811:2005
Light Transmission	%	0	KS M 4811:2005
Toxicity		Nil	KS M 4811:2005
Micro Biological Growth		Nil	KS M 4811:2005
Bending Strength	Mpa	190~200	KS M 4811:2005
Elastic Modules in Band	Gpa	15.9	KS M 4811:2005
Compression Strength	Mpa	100	KS M 3015:2003
Liquefaction Test (Turbidness)	Degree	Below 0.1	KS M 4811:2005
Liquefaction Test (Chromaticity)	Degree	Below 1	KS M 4811:2005
Thermal Expansion Co - Efficient	1°C	0.000016	KS M 3015:2003
Ultra-Violet ray		None	

REINFORCEMENT SYSTEM

Internal Reinforcement System

Excellent strength, durability, water tightness, and appearance ; safe structure design

The panels are interconnected with stainless steel tie rods in the GRP water tank to guarantee the strenght of water tank.

▲ Internal section and structure

▲ Over Stirator Height

DH GRP SECTIONAL WATER TANKS

External Reinforcement System

High durability, hygiene and easy maintenance

The joint of the side pane is supported by an external reinforcement frame. The upper parts and the lower parts are fixed with angles and brackets using bolts.

▲ External section and structure

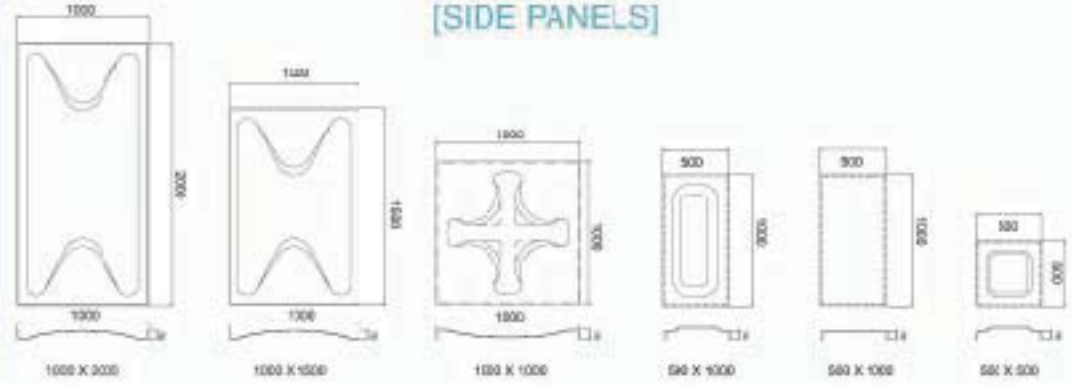
▲ Up to 2.6meter Height

COMPOSITION OF DH GRP TANK PANELS

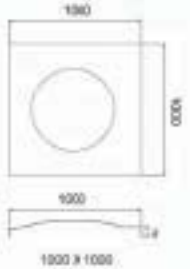
SIDE PANEL COMPOSITION BY HEIGHT

PANEL SHAPES & DIMENSIONS

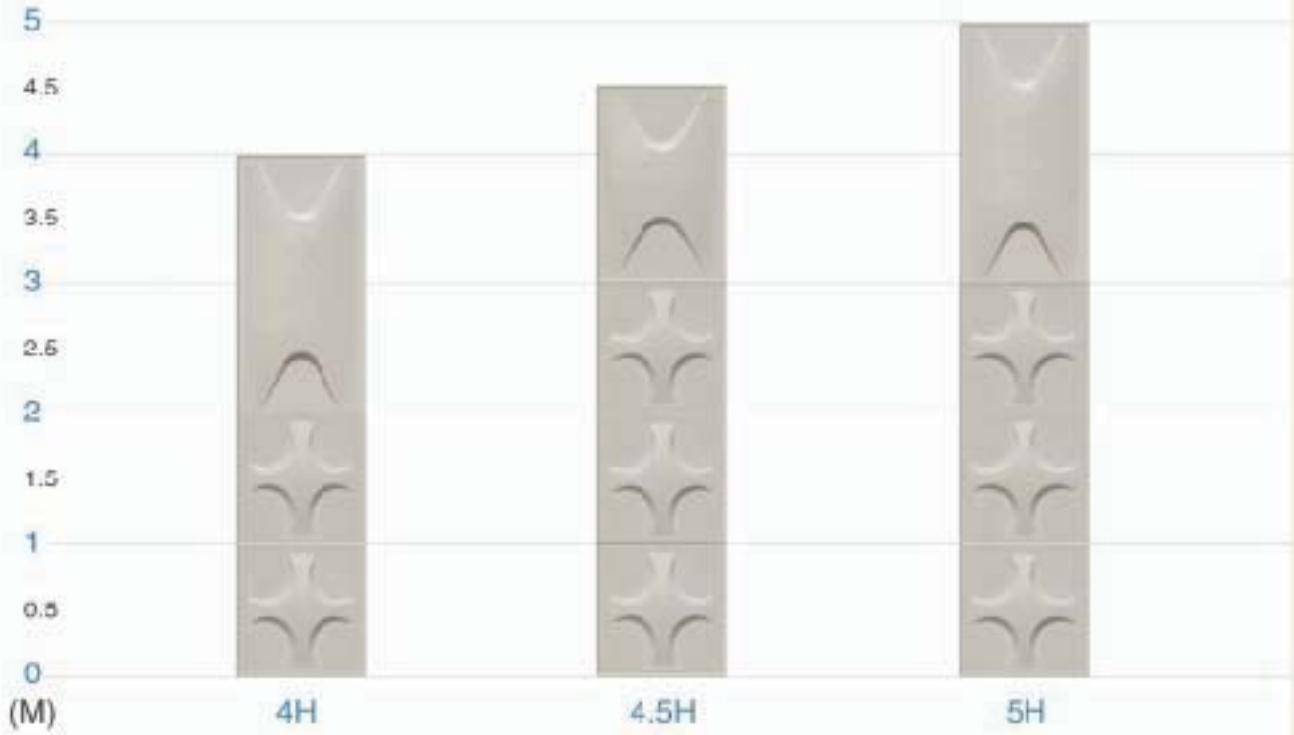
[SIDE PANELS]



[ROOF PANEL]

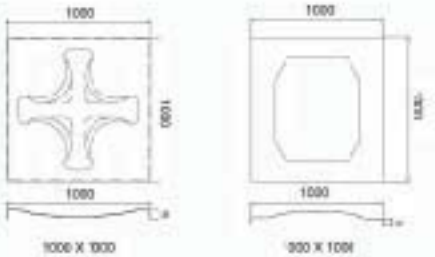


COMPOSITION OF DH GRP TANK PANELS



[BOTTOM PANEL]

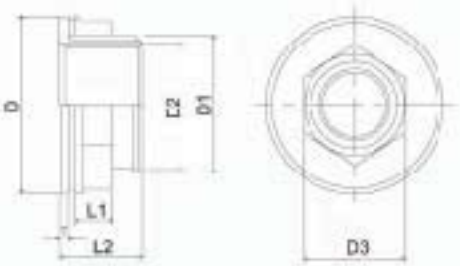
[DRAIN PANEL AND MANHOLE COVERS]



FITTINGS & FLANGES

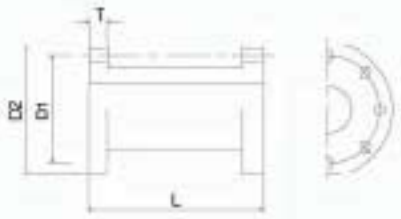
FITTING & FLANGES

SOCKET (BRASS)



nominal dia	D	D_1	D_2	D_3	L_1	L_2	T
20A	55	33.5	24.1	38	10	25	3.5
25A	65	40	30.3	46	12	30	4
30A	79	49	38	53	12	30	4
40A	85	55	45	61	14	30	4
50A	95	66.5	56.7	72	14	30	4

FLANGE (GRP/FRP)



nominal dia	D1	D2	T	L
65A	140	175	18	170
80A	150	185	18	170
100A	175	210	18	170
125A	210	250	18	170
150A	240	280	22	170
200A	290	330	22	170

※ CAUTIONS FOR CONNECTING PIPE TO FLANGE

1. FF type flange packing should be used.
2. Support should be installed under pipe and valve as below drawing.

PARTITION TYPE WATER TANK

It is possible to eliminate unusable space, and utilize the maximum space by installing a partition type tank. It is good for economical and effective maintenance.

Utilizing maximum capacity
In the basement or other confined areas, it is possible to eliminate unusable space and utilize the maximum space, by installing a partition type tank.

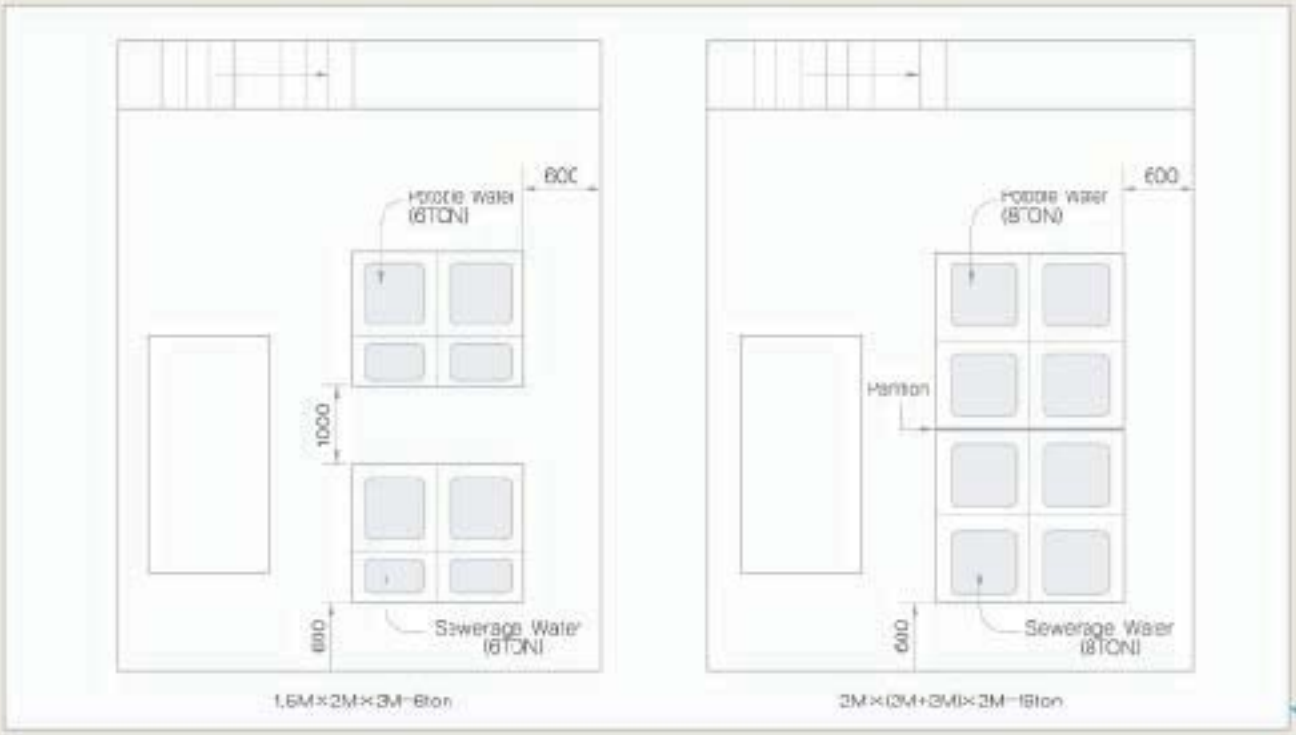
Various use
If partition type tanks are installed, one section can be used for drinking water and the other section for service water (fire fighting etc).

Easy Maintenance
It is convenient for maintenance, because two tanks can be installed as one unit.

Cost effectiveness
The cost and installation of 1 partition tank is cheaper than 2 separate tanks.

Example for Installation and using

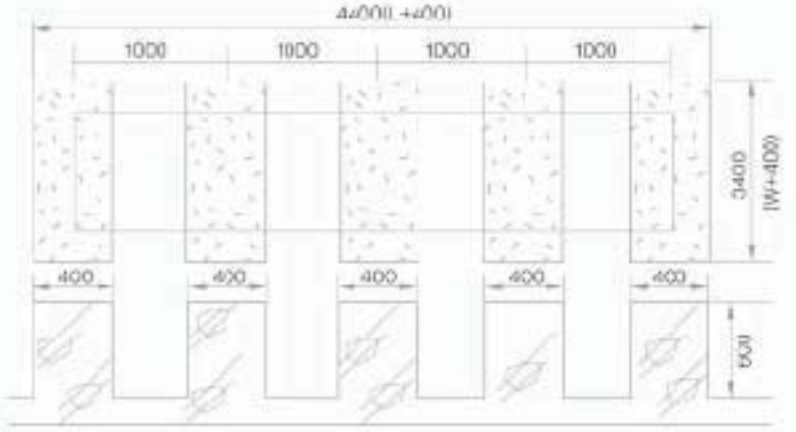
If tanks for two different use are needed in a confined area or boiler room, a 16 ton partition type tank can be installed to use half for drinking water and half for portable water. If separate tanks are installed, however, you have to install two tanks with a maximum of 6 tons, because you need to have 1 meter distance between tanks for maintenance and operating space.



PREPARATION FOR INSTALLATION

Base Concrete Installation Standards

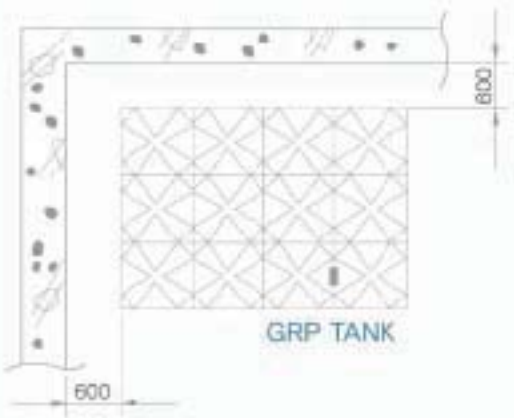
Width : 300~400mm	Outer Dimension : Width, Length +400mm
Height : over 600mm (Base frame included)	Space : less than 1m
Horizontal Degree : less than 1/500 (Surface has to be horizontal)	

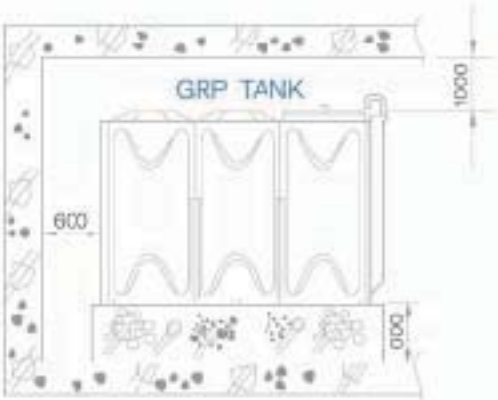


GRP Water Tank Installation Space

For maintenance and repairs, it is recommended to leave at least 600mm and 1,000mm extra space from wall and ceiling.

Example : 3W X 4L X 2H





GRP SECTIONAL WATER TANK INSTALLATION AND CAUTION

Installation scope

Base Concrete

Customers are requested to make base concrete according to the designed specifications and the strength of the site.

Anchor bolts are to be fixed by our agents.

The required strength of the base concrete must be at least 180Kg/㎠.

The thickness of mortar on the base concrete must not exceed 20mm.

The Extent of Installation Work

If the customer designates the size of sockets for plumbing, our agents will install the sockets.

After the sockets are in place, the plumbing and heat insulation must be done by customer.

Caution

Transportation

Do not place heavy loads or force on the panels during the transportation.
Those parts touched with rope or other cargo must be cushioned.

Pipe Installation

Be careful not to put any heavy weight on the pipes connected to the fitting.

Pipe installation must be started from the water tank side and be careful not to put unbalanced weight on the fitting.

Take precautions to avoid fire or other occurrences / accidents while welding.

Maintenance

If it is not used for a long time, be sure to drain the water from the tank.

As the tank is a reservoir of water for consumption by people, regular inspection should be done for safety (more than twice a year)

REFERENCE















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Design-engineered and customised solutions that enable efficient, cost-effective storage and pumping of liquids and water...

STEELFAB
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Tested by design

Innovation in design

Flexibility in product

Reliability of service

Steelfab Water Solutions design, manufacture and install award-winning water and liquid storage tanks. Our products have great strength and capacity and are backed by our water-tight, steel-clad guarantee that covers both parts and labour.

We are one of the most experienced, well established water tank manufacturing companies in Australia.

Our depth of experience means that we can give you the best advice on tank and pump combinations to maximize the efficient and costeffective storage and pumping of liquids and water.

Steelfab Water Solutions tanks are ruggedly designed for Australian and other harsh climatic conditions and range in size from 1,000 litres up to 10,000,000 litres and above. We have extensive skills and experience and whatever your requirements are we can custom design and build the right water storage solution for your specific needs.

When you choose Steelfab Water Solutions you receive the many benefits of our commitment to quality and customer service. You will also appreciate the enormous benefit of investing in a product that has strength, durability, flexibility and uncompromised quality.

STRENGTH AND DURABILITY

Steelfab Water Solutions tank walls are manufactured to the highest standards from 1mm BMT Bluescope Zincalume® or Colorbond® Sheets. This makes the tank walls 40% thicker than many other tanks on the market. The quality and thickness of steel removes the need for sacrificial anodes which may have to be replaced annually.

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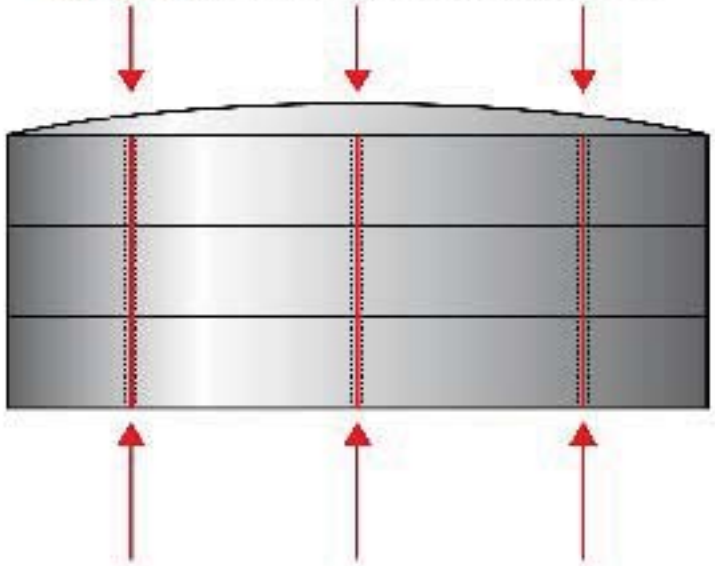
INNOVATION IN DESIGN

The wall panels for an Aquadome range are arranged in a staggered configuration, like brick bond, to maximise strength. The Aquadome is the only tank on the market with staggered seams.

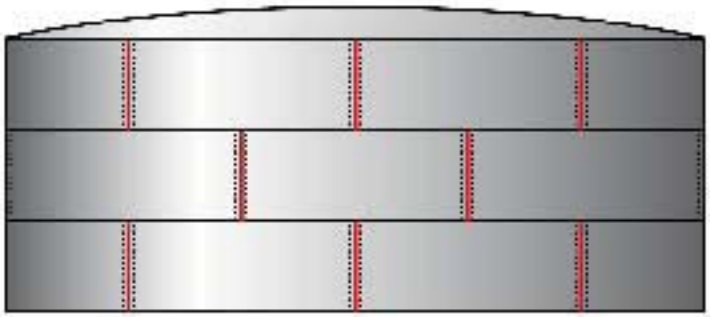
FLEXIBILITY IN PRODUCT

The factory machined panels of the Aquadome tank are custom built for your particular needs. The tank can be built from a low profile of only 1.7m high upwards in small 300mm increments. This means you can maximise your water storage for the available space.

Lines of structural weakness and potential failure in traditional tank construction



Aquadome



Greatly increased strength from the brick bond pattern of the steel sheets in SteelFab Water Solutions' Aquadome tanks

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QUALITY LINER

Steelfab Water Solutions are the only company to manufacture their own solid liner in house to Australian Standards AS4020: Drinking Water. The superior quality of our liner gives you complete peace of mind as it secures your precious water better than any other liner can. It's very flexible, with a 250% stretch factor and is 1.8 times the strength of HDPE/LDPE commonly used in other water tanks. Alternative lining membranes are available for project specific applications.

TRUSSES

Roof trusses are fully welded and hot dipped galvanised to prevent corrosion. All tanks are bolted together with electro galvanised 8.8 high tensile nuts and bolts.

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MANAGEMENT TEAM

Steve Eggers

Managing Director

Steve has been involved in this industry for over twenty years and has extensive experience in the sheet metal and steel engineering industry including substantial onsite hands on experience with pipe systems. Steve is a qualified sheet metal worker and welder.

He has extensive experience in both the domestic and commercial/industrial watertank market. Steve plays an integral part in the design, manufacture and preparation of materials and equipment.

John Maloney

Financial Controller

John has been involved in the finance industry for many years, and has worked in a number of corporate organizations. His highly developed

in the financial analysis and management of large and complex projects.

Strong finance management is an integral component in the overall management of Steelfab Water Solutions.

Kelvin Turner

Commercial Projects Manager

Kelvin has been involved in the industry for more than twenty years. In that time he has seen a substantial period both on site and working in the design of new and innovative products and systems.

Kelvin's experience adds real value to the services offered by Steelfab Water Solutions.

His key roles are business generation, product and system design, costing and tender preparation and overall management of the projects through to completion. Kelvin reports directly to John Maloney and Steve Eggers.

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Greg Barnes

Domestic Sales Manager

Greg has many years experience in sales management and business proprietorship with extensive experience in the transport industry.

He has a depth of IT industry experience and a thorough understanding of all aspects of successful business management.

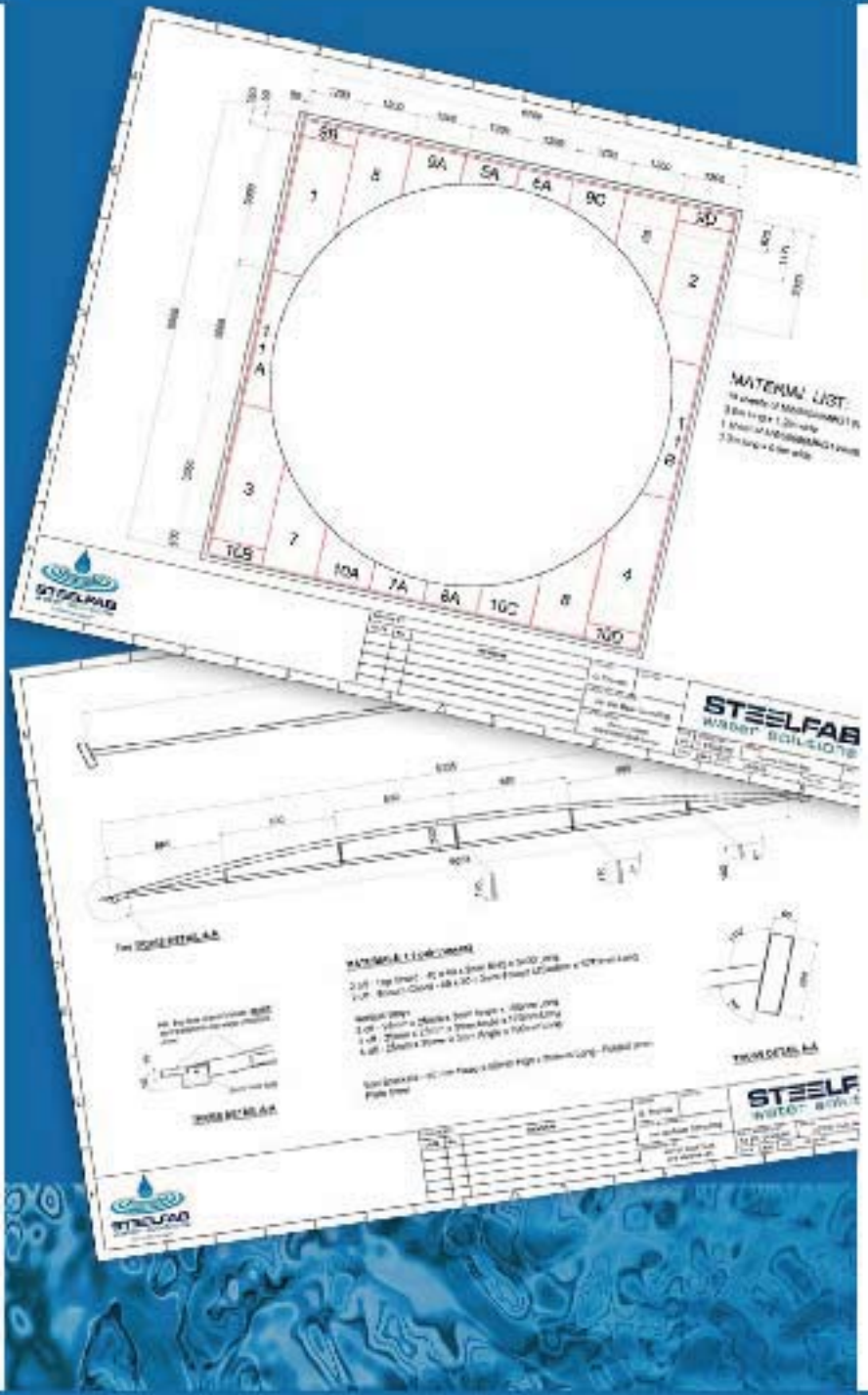
Greg's business philosophy is perfectly match with Steelfab—ethical, honest and above board at all times.

THE ENGINEERING DESIGN TEAM

Kelvin Turner

Project Design Engineer

Kelvin works with clients to provide design services and consultancy on specific project requirements. When a client seeks to achieve a specific result, we offer flexible and unique product options not



available through other companies that achieve the exact results required cost effectively. Working with Errol Wilkinson and the production team we can achieve results for clients that surpass expectations—there are no pre-determined solutions, only endless possibilities.

Errol Wilkinson

Commercial Projects Supervisor

Cad Designer Draftsman

Errol has in excess of fifteen years in this industry and has a unique understanding of the products and services we seek to offer to the market.

Errol's unique fabrication machinery knowledge has a great understanding of specific product systems that we are now offering to our commercial and industrial clients. Pump skid systems and dumping systems involving specific setup arrangements are well within his capabilities to design and draw for fabrication by the Steelfab Production Team.

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Eric's extensive experience with Cad and his understanding of the product, its possibilities and the lack of limitations for the projects allow him to prepare General Arrangement drawings for project tenders and quotations. These drawings are used at a later date when the project becomes a reality. His information is then used for the preparation of execution drawings and fine "As Built Drawings".

During this process, drawings are manipulated and altered to include specialized nozzle fittings and arrangements for our clients to approve prior to production.

This is an integral part of our quality system, ensuring all components for a project are checked and approved prior to production commencement.

Eric is also involved in costing and tender preparation.

PRODUCTION DEPARTMENT

Colin Ovens

Workshop Manager

Colin is a qualified sheet metal worker with substantial experience in specialized steel engineering and stainless steel and aluminium welding techniques.

Colin has a team of tradesmen and apprentices that look after the manufacture of all of the materials required for our projects.

Documentation from the sales and commercial departments are entered into the production schedule and then prepared for packing and shipping to the relevant job site or project. The workshop work to strict quality guidelines to ensure that all components are manufactured to the exact requirements of the project or to specific design criteria.

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LINER PRODUCTION DEPARTMENT

Aadiele Alexander

Liner Manager

Aadiele has substantial experience in the industry as a liner membranes welder and manufacturer. He has worked extensively offshore before coming to Steelfab to run our liner workshop.

He is directly involved in the design of new lining systems and methods to improve the overall product appraisal to each project.

Aadiele actively seeks out new ideas and innovations. His department adds value to the Steelfab Water solutions with new products and systems, adding to our already extensive product and service range.

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WHAT WE STAND FOR...

- We will always conduct business relationships with our valued clients and suppliers with genuine fair play and ethical business practices;
- We will always do what we say we will do, when we say we will do it;
- We will always provide the best quality of product and service; and
- We will always provide the most innovative, solution oriented water and liquid storage tank systems

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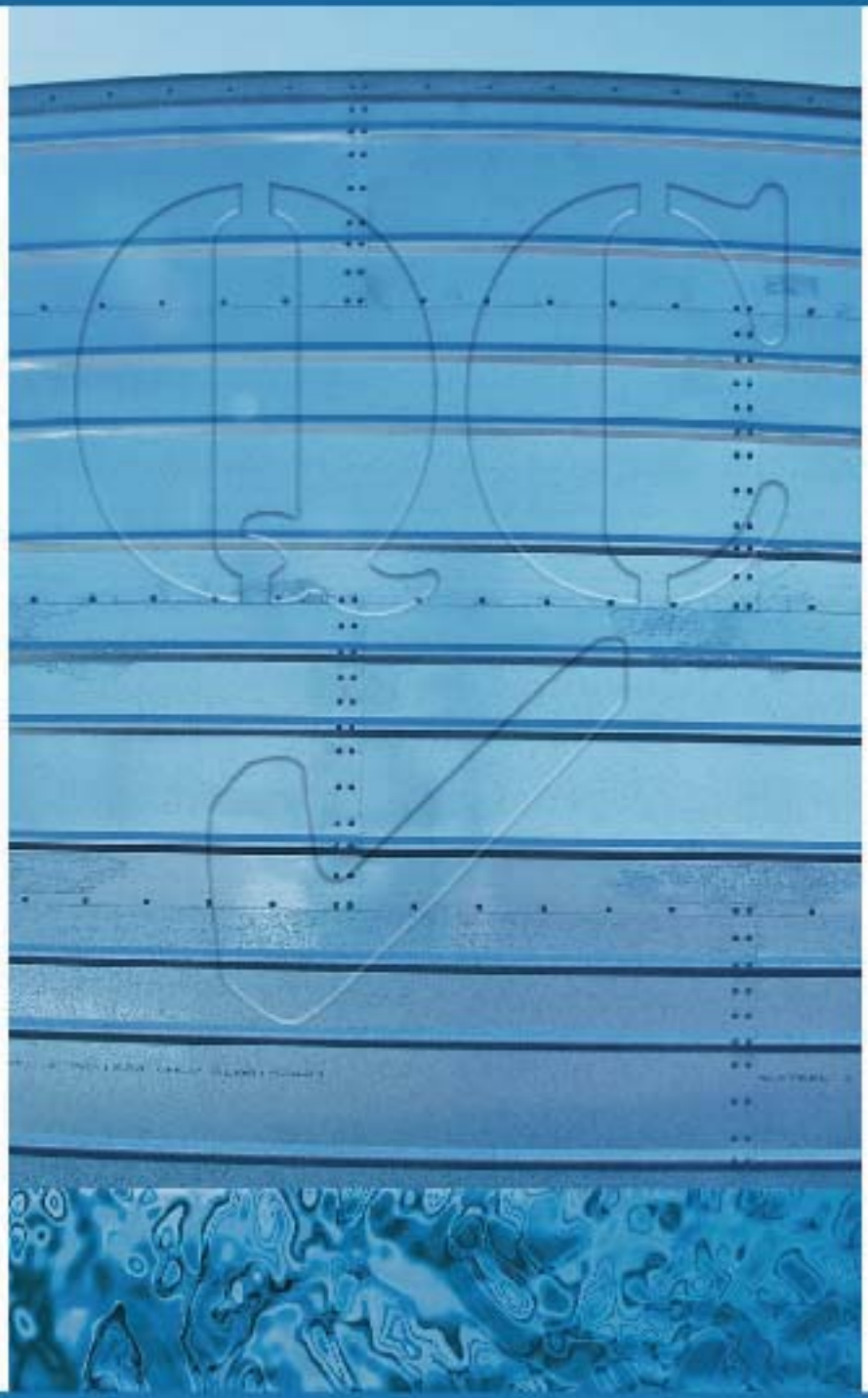
QUALITY

The team at Steelfab Water Solutions are committed to Quality when it comes to the design, manufacture, installation and ongoing servicing of their range of products. It is of the utmost importance to the team at Steelfab Water Solutions to maintain the highest level of quality, service and durability while keeping project budgets tightly under control.

Steelfab Water Solutions' business strategy is to become the benchmark in this industry and provide first quality and service that exceeds the expectations of our clients ensuring their respect and loyalty.

It is therefore an important requirement of this policy for Steelfab Water Solutions to provide its clients with a product and service suited to their intended purpose and in total conformance with



all the relevant specifications and Standards. Steelfab Water Solutions are committed to working with and fostering a friendly and supportive work environment conducive to team oriented production.

The Procedures in our Quality System outline and describe how the system is custom designed to ensure that the customer requirements are recognised and that a consistent control of these requirements is understood, implemented and maintained. The ongoing and proper adherence to this policy is a requirement in all aspects of Steelfab Water Solutions' business dealings.

This policy is issued to clearly indicate Management's positive attitude and commitment to Quality

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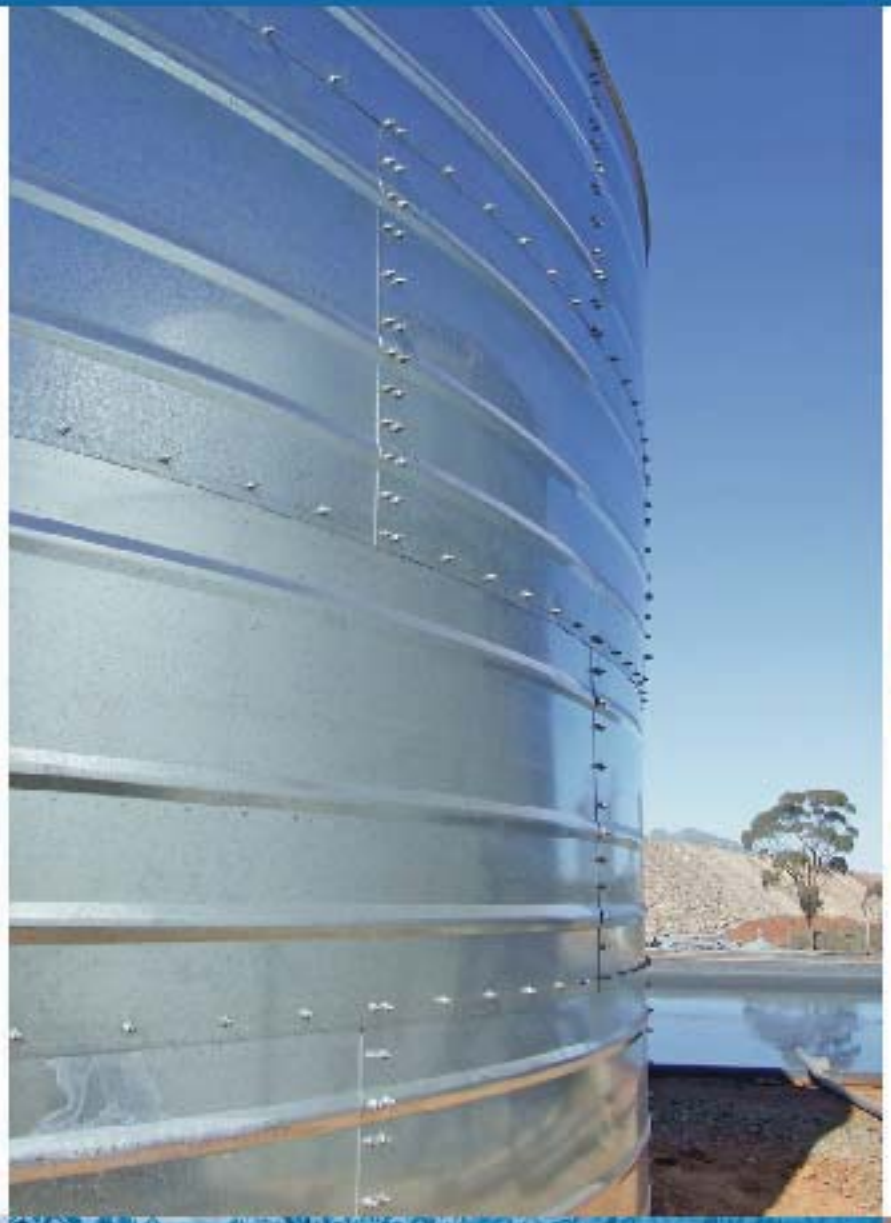
DESIGN CAPABILITIES

Our experience in the industry allows us to offer unlimited design options to clients.

In many cases project engineers with specific requirements for water or liquid storage tanks have situations that can only be addressed through customised solutions.

Our ability at Steelfab Water Solutions is to endlessly customise our tanks to any project's specific and unique requirements without any restrictions in size or usage that may arise with predetermined, standard sizes.

In every situation we systematically request as much specific information from the client as possible—enabling us to design appropriate and cost-effective solutions.



Information we require includes:

- Preferred diameter;
- Height;
- Location and access to site;
- Prevailing weather and soil conditions;
- What type of water or liquid is to be stored in the tank;
- Operational structure of the plant;
- What commercial objectives must be met from the installation of this tank; and
- Optimum delivery, installation and commissioning dates.

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CASE STUDIES

BURRA FOODS OF VICTORIA

Their requirement was for a tank to store waste water from a food processing plant.

The Situation...

The process required storage of the water in order for it to be treated. In the past tanks that stored this water would build up sludge in a short period of time—during the holding time much of the sediment would drop out—a time consuming and expensive job to periodically shut down the system to de-sludge the tanks.

The SteelFab Solution...

We designed two tanks with sloping floors going to a central 150mm floor suction point. The installation of mixing nozzles in 4 locations around the tank and the installation of a circulation pump.

The operation of the system provides continual mixing of the water in the tanks and a continual agitation of the sediments that do settle out down to the central scour suction outlet.

Outcome...

With this system there will be no build up of sludge and no need to ever enter the tank other than for scheduled inspection of the tank liner.

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CASE STUDIES

LYCOPODIUM ENGINEERING: BLACK SWAN PROJECT

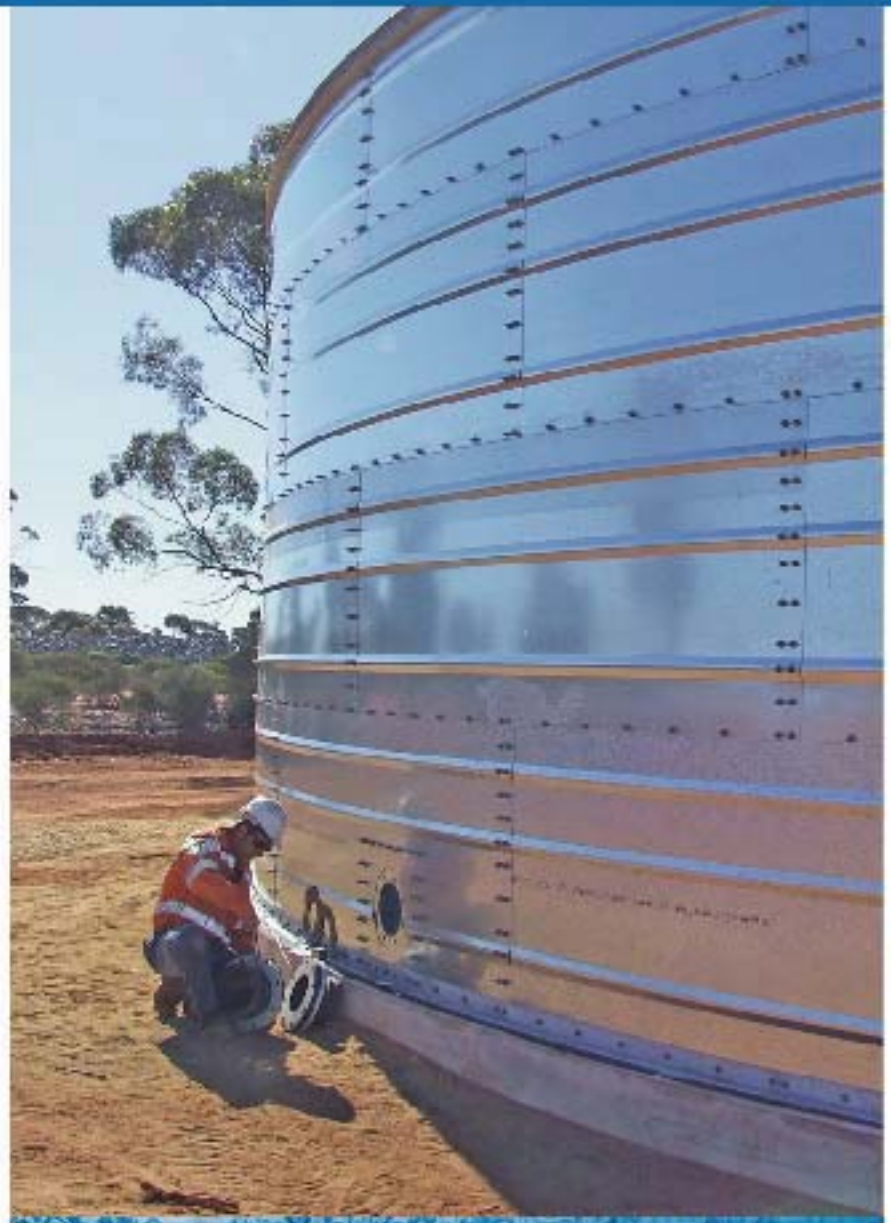
The first project we've supplied to Lycopodium Engineering for client Lion One for the Black Swan Nickel Project 60km north of Kalgoorlie.

The Situation...

The client's initial request was for a 7.2 mega litre (7,200kL) tank for storage of raw water and a 550kL tank for storage of potable water.

They required design and construction with options for dimensions that would fit with their plant design. The request was for recommended solutions and the reasoning behind those recommendations.

We were instructed to recommend materials that would fit within a stated budget and cater for the required design life.



The SteelFab Solution...

Our solution was for the preferred standard diameter and height for the project of 59.93m diameter and 4.8m high being 13,444kL—allowing for the required effective capacity of 12000kL.

The requirement for this tank was to be open top allowing for possible wind conditions that could affect the tank's structure when empty.

The final design was for a Zinc Coated Steel panel (galvanised) for the exposed area for the shell, and a 0.8mm PVC membrane UV stabilized for the required design life.

The Result...

We made recommendations for the preferred diameter and height for the project potable tank to be 12.93m diameter and 4.8m high allowing for the required effective capacity of 500kL. The requirement for this tank was for roofed construction to prevent contamination of the water stored being potable water. The offer of materials was accepted and the contract awarded.

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CASE STUDIES

ROCHE MINING
GRANNY SMITH
WATER TRUCK FILL STATION

The Situation...

The initial enquiry was for a 50kL tank on a 12m tower to provide water pressure to fill water carts at the Granny Smith mine. 50-t water trucks were taking around 70 minutes to fill. Additional equipment was required to complete the important task of dust suppression around the site. The system was required to speed up filling time and reduce standing time of the trucks.

The SteelFab Solution...

We made the point that a tower based system would not be cost effective for them. The solution offered was for them to build up a 4m high bund and pour an eight metre square concrete pad on top of it. We would then construct a 10m high x 5.2m diameter tank on the concrete pad with a truck fill gantry connected to the base. We calculated that when the tank was full, the top 2m of the tank contained the required 50kL with the original requirement of 12m of head pressure. The truck fill gantry in 200NB pipe would allow adequate flow to fill the tanks in a shorter time.

The proposal and designs were submitted to the client with G.A. General Arrangement drawings for their consideration.

The Result

The cost of the system was substantially over their original budget. The final result was the placement of an order for the original system on the earth bund as well as a second tank and gantry to be installed on the side of a waste dump for pressure.

Once the systems were installed and commissioned the water trucks were able to be filled in 4-6 minutes instead of the previous 30-40 minutes.

Financially, the client later confirmed that the new system paid for itself in less than 12 months—they were able to complete the same overall watering regime with one less water truck. The reduction in equipment time was enough to cover the cost of the system.

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CASE STUDIES

CSR READYMIX
CHILLED WATER STORAGE TANKS

The Situation...

The client required a tank to store chilled water for their concrete batch plant at Dampier Port for the new port expansion project. Chilled water (3-4°C) is required for batching concrete to maintain a predetermined temperature at delivery to the site. Concrete supplied at more than 35°C over the pre determined temperature is rejected, therefore the possibility for substantial losses is high.

The SteelFab Solution...

In discussion with one of our Associate Companies, Corrie and Thermal Engineering, the option of externally cladding the tanks was suggested. This would be a costly exercise and time consuming. Given the short life expectancy of the plant for the construction period of the project the option of externally cladding the tanks with "Aeroflex

Rubber" was chosen. The panel design of the Steelfab range of tanks made the fitting of the "Aeroflex Rubber" a simple process—providing a perfect solution to the project requirement.

This flexibility of thinking and design allowed for a product that could be dismantled and reassembled at another plant if required. Steelfab were able to offer this relocation service if required.

The Result...

The result was the purchase, manufacture and installation of the tank for the project and the on site application of the Aeroflex rubber to the external surface of the tanks.

The final product provides adequate insulation to allow for the water to be chilled and held at 3-4°C for the batching process.

Steelfab have since supplied two other projects of a similar nature with the same successful outcomes.

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CASE STUDIES

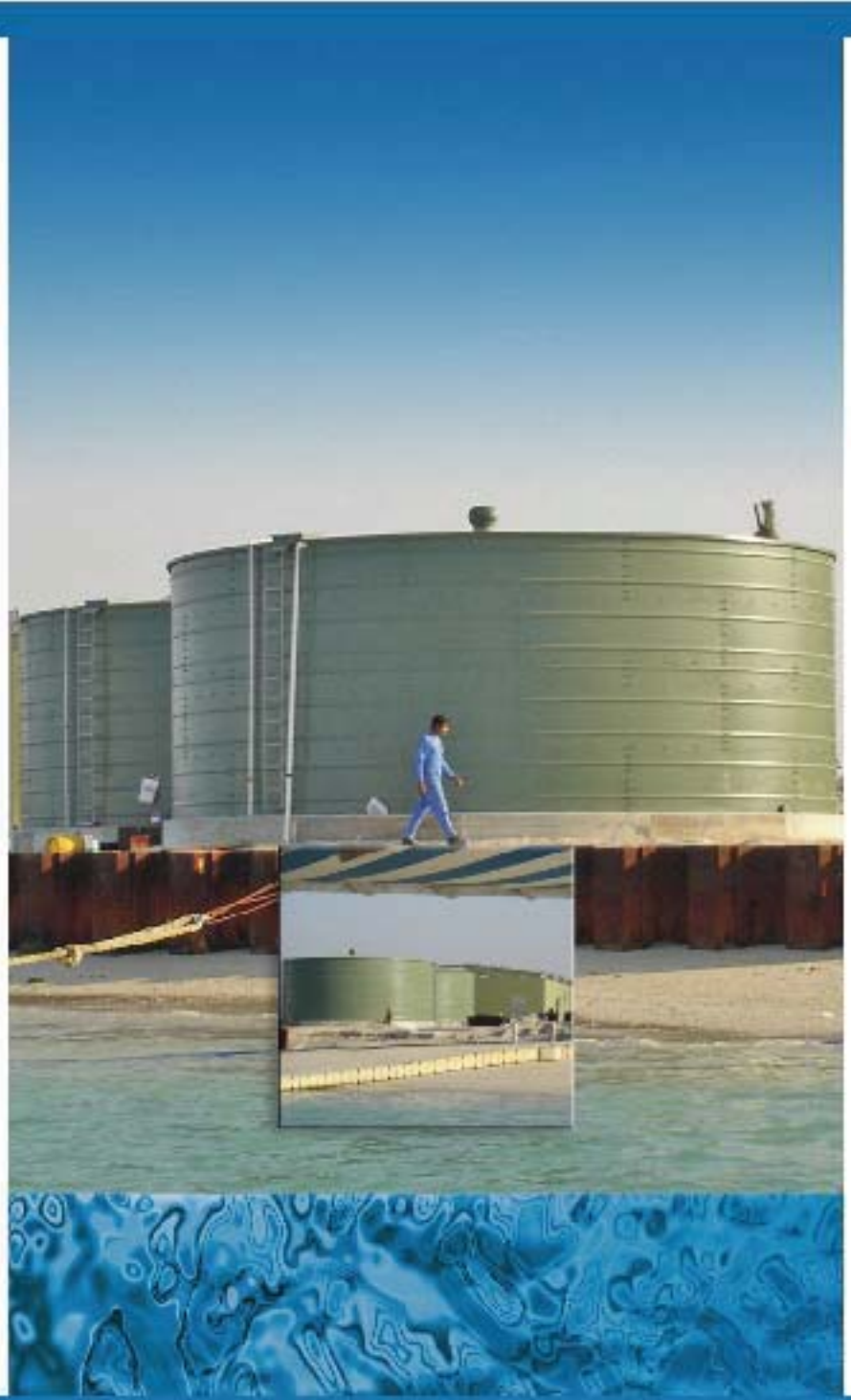
UAE, DUBAI
WORLD ISLANDS
WATER SUPPLY PROJECT

The Situation...

This project resulted the design, supply and installation of potable water storage tanks for the new World Islands project. A product suitable for site assembly with minimal infrastructure requirements by way of mechanical equipment was stipulated.

The SteelFab Solution...

It was necessary for the dimensions of the tanks design to reduce the footprint area and keep the height down to the required levels. As always the Steelfab design allows for shipping and transporting of materials to remote and inaccessible sites—components are then bolted together to form the shell of the tank.



The Result...

Steelfab's core competencies in design, production, delivery and installation is exemplified in this case, due to the urgent nature of the contract. The tanks were airfreighted from Australia to the UAE and delivered on site to the installation subcontractor within ten days of the order being placed. The two 250-L tanks were efficiently installed within three and half days of receiving the materials.

The suitability of the product for the project was noted by the client—with future projects directly resulting from our ability to design to unique and specific project requirements rather than expecting our clients to select from pre-determined standard sizes and templated solutions. Our flexible approach in all areas of our business is the key to our clients satisfaction.

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10kL - 10,000kL+

PRODUCT RANGE

THE AQUADOME

Steelfab Water Solutions have a wide and diverse product range that is more comprehensive and flexible than virtually all other companies in the industry.

Steelfab have geared the business to offer purpose built products to meet the client requirements exactly rather than trying to rearrange or alter existing products to meet their needs.

The Steelfab "Aquadome" design is designed and engineered to offer the widest range of sizes and capacities of any tank in the industry. Allowing options of any diameter up to 80 metres and more or any height up to 30 metres plus—in increments of only 300mm—the client can have a tank designed to meet their specific and individual needs rather than be forced to pick from a pre-determined list of sizes.

All Tanks Engineer Certified Terrain Category 2 Region D (Cyclonic)

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STANDARD AQUADOME RANGE

The standard list of Aquadome tanks are available for all applications and virtually "off the shelf" with regard to response times.

The standard Aquadome range are a bolted lined tank with either the .6mm Aquatex liner membrane fitted or the option of the .8mm Duplex liner membrane fitted.

The standard range of tanks can be utilised for commercial and industrial applications— dependant on the required design life and the specific needs of the project. Our project team will assist in the selection of the appropriate product for the project.

The standard range are available at "set prices" with a set list of accessories included. Moving outside the standard list of accessories will incur additional costs commensurate with the added accessories or fittings.

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The project team can and will always assist with preparing a written quotation for the standard tank including the additional accessories and fittings that may be required.

COMMERCIAL / INDUSTRIAL AQUADOME RANGE

The Commercial Industrial Aquadome range is fully customizable to your specific requirements.

Some of the options are as listed below.

- Bolted and lined with 1.8 Duplex membrane
  Bolted and lined with 1.2mm, 1.0mm or 1.5mm butyl rubber or HDPE membrane
- Bolted epoxy coated internal and sealed with Sikaflex adhesive sealant
- Bolted Stainless Steel 304–316 to client specs. sealed with Sikaflex adhesive sealant
- Bolted Stainless Steel 304–316 to client specs. Lined with any membrane option.

Any option or combination of these options are available dependant on client preferences and project requirements.

Our experience in the industry allows us to make valid recommendations to the client with regard to the most practical and suitable options for the project. In many cases the most expensive option will not necessarily be the most cost effective. It is our responsibility to ensure that cost effectiveness is achieved throughout the design process. However, if the client specifies a particular product type, Steelfab will provide the exact product required by the client to their specification.

Guarantees on products will vary dependant on the product type and our view of the suitability of that product to the intended application.

All tanks are available as roofed or open top applications depending on specific functional requirements.

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LINERS

We import two different materials for the manufacture of liners for tanks. Both the materials are exclusive to Steelfab Water Solutions

0.55 POTABLE AQUATEX PVC

Potable water liners are 0.55 mm thick PVC material made especially for Australian and other harsh climatic conditions. It has a rougher texture that any other PVC on the market, it will still stretch but is not prone to shrinking as other soft compounds does are. It is harder to puncture—yet can be repaired under water with a simple glue-on patch.

0.8 DUPLEX UV STABLE PVC

This UV stable material is used where no UV exposure is high or in harsher environments. It is not for potable water. As a laminated product it is a very strong and hard wearing material for Australian conditions.

We have made and installed liners up to 20m in diameter and 6m high. We have the ability to go over the measure, manufacture and install with a minimum of down time.

Because we use PVC, our weld is the strongest part of our liner, not the weakest like woven materials or HDPE/LDPE materials.

WHY PVC?

PVC (poly Vinyl Chloride) = 1.8 times the strength of HDPE/LDPE so our 0.55 is equal to 1.0mm material. Our 0.8 is equal to 1.5mm but our material is so flexible and will conform to any shape or contour which means no folds or creases to collect on equipment. PVC will take higher and lower temperatures than HDPE/LDPE.

PVC is permanently repairable wet or dry without special tools or training. PVC is the only material that truly welds together. The weld penetrates right through the material, not just the top surfaces as with layered materials.

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PUMPS

FREE ADVISORY SERVICE...

Steelfab Water Solutions offer free advice on choosing the correct pump for your situation. It is very important to install the correct pump as mistakes can be very costly. We will ensure that your pump is precisely matched to your requirements and is correctly installed.

PUMP SERVICE...

Steelfab Water Solutions is a Master Dealer for Davey Pumps and an Accredited Davey India Service Agent. We provide a full installation service to maximise performance and economy in pumping water for all purposes. We carry the full range of spares for all pumps and rest assured that your flow of water is guaranteed with Steelfab Water Solutions. **YOUR WATER-TIGHT GUARANTEE...**

Davey Pumps have a 2 Year Guarantee on pumps and a 5 Year Guarantee on pressure vessels. Ebara pumps have a Year Guarantee.

Steelfab Water Solutions has many years of experience in locating and maintaining water pumps and is committed to providing you with the very best advice and service backup.

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COMMERCIAL AND INDUSTRIAL FITTINGS

CLIENTS HAVE UNLIMITED CHOICE OF FITTINGS AND ACCESSORIES

- Nozzles to all sizes
- All flanges types
- Ladders
- Platforms
- Specialised return air fittings








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DESIGN FLEXIBILITY

NO PREDETERMINED SIZES—ONLY ENDLESS POSSIBILITIES...

The Aquadome range is built in 300mm increments this proprietary technology is unique to Steelfab. It means that the maximum use of available space for water/liquid storage or processing is possible.

This structural flexibility reduces restrictions on what can be achieved, providing endless customisation of solutions for a number of projects—from dried water for complete catchment to viticulture, from aquaculture to sewerage.

The 300mm increment means that Steelfab's solutions can often be much more cost effective than the competition's as all material savings are passed on to our clients.

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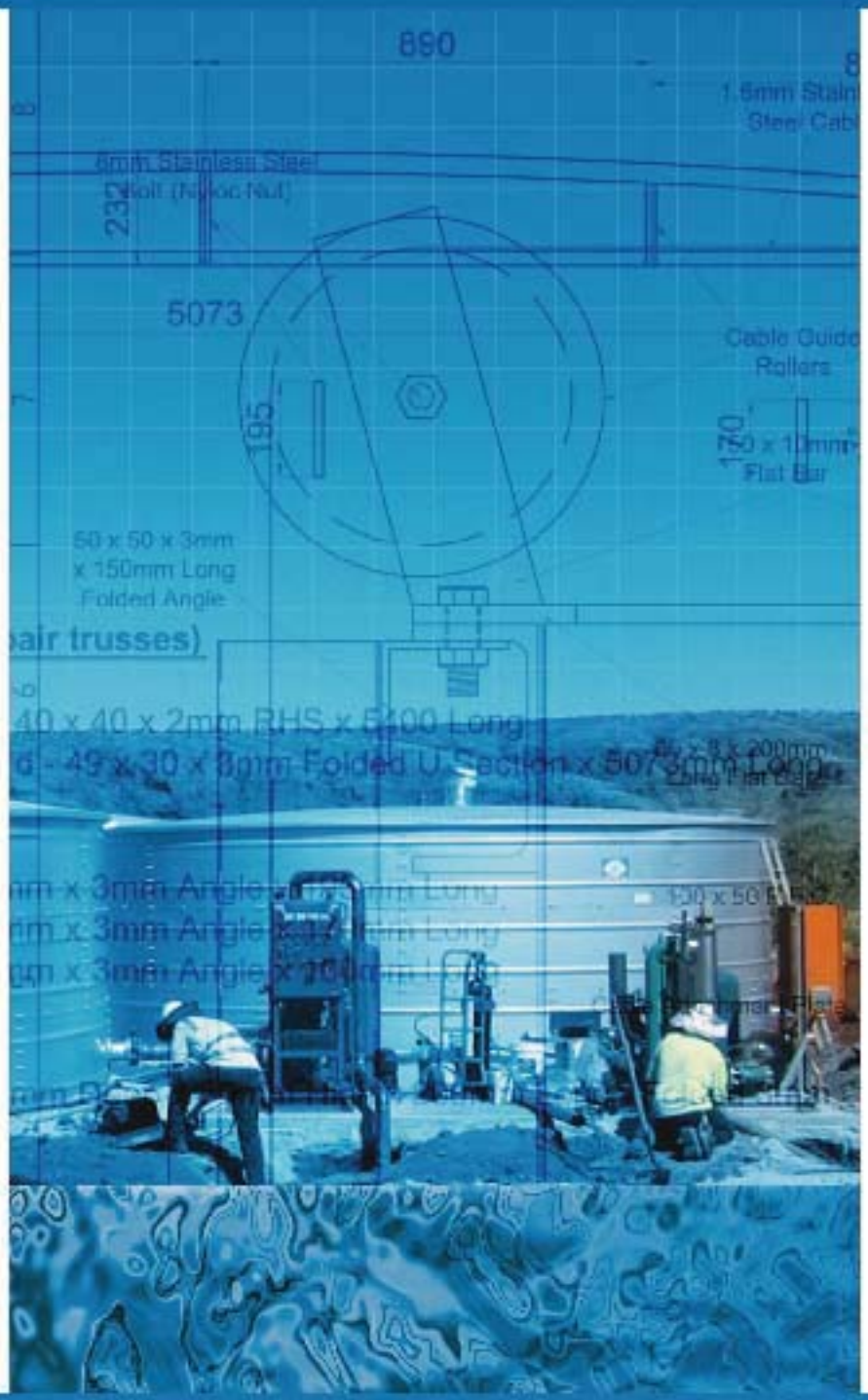
PRODUCTION PROCESS

PRODUCTION DOCUMENTATION

Documentation is critical to our organization. Our documentation in the past 3 years has undergone a complete overhaul and now includes a Quality System and the implementation of full OH&S Policy and System that ensures a safe workplace for all our workers from management and production right through to the assembly crews on site.

PRODUCTION DOCUMENTATION

The Production Documentation System incorporates full check lists for the production departments. These incorporate detailed costings of the projects for financial analysis and management, quality documentation in the form of Production Schedules and Inspection And Test Plans (ITP's) that are complete with Hold Points that "must" be adhered to by the production departments. No production step marked with a "hold point" can proceed



without specific direction from either management or from the commercial production team.

The implementation of these systems ensures, as far as is humanly possible, the required excellence, quality and accuracy of the products that pass from our workshops.

DRAWINGS

Each project has drawings prepared for submission to the client for approval in the form of General Arrangement Drawings. Once drawings are approved by the client, fittings and accessories are included on the drawings from information provided by the client. Once these drawings have been submitted and approved by the client production can commence.

When the project has been completed on-site dimensions are taken and final "as built" drawings are prepared and final "as built" drawings are submitted to the client as part of our hand over pack.

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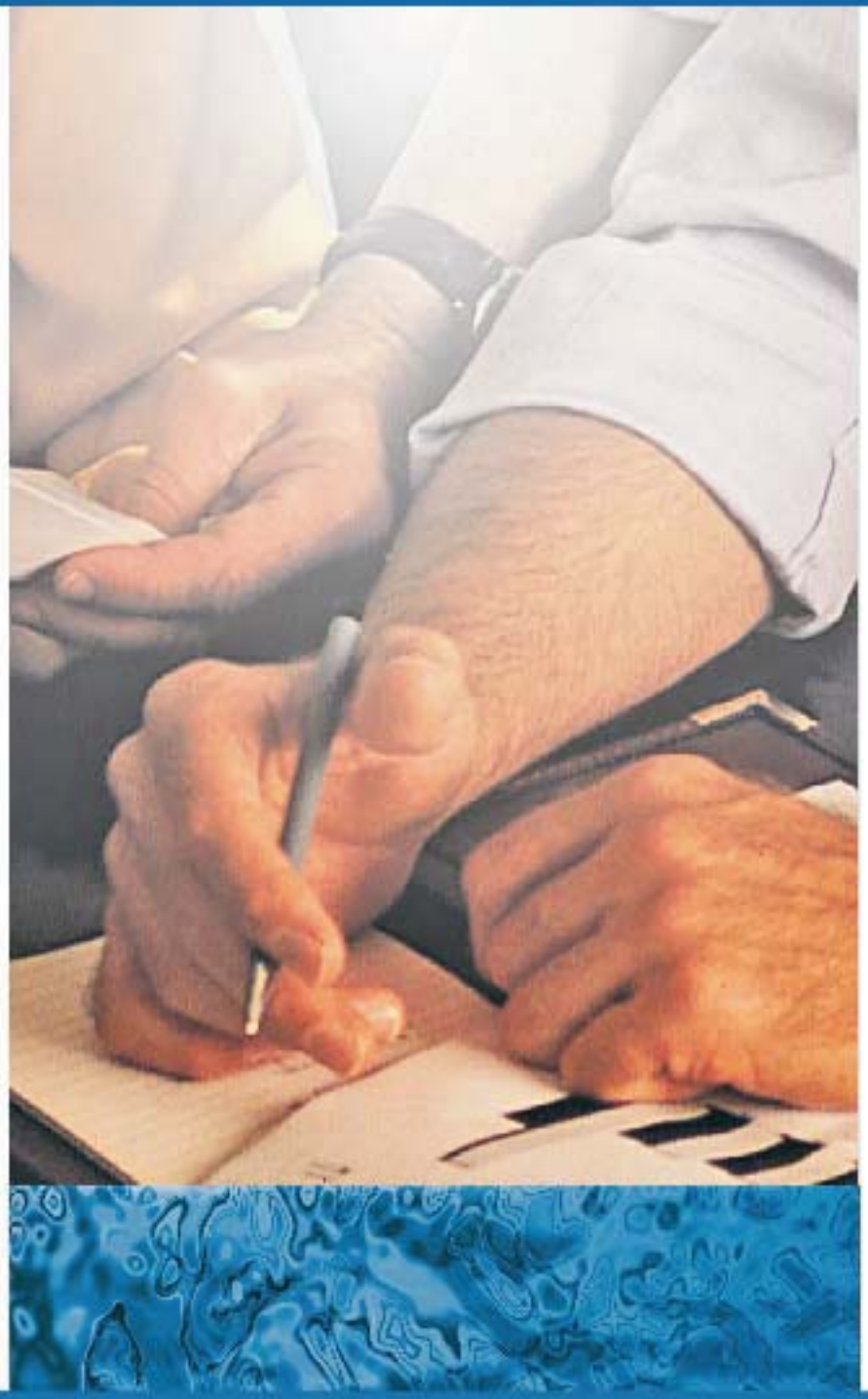
CLIENT DOCUMENTATION

All documentation submitted to our clients from quotations, tender documents and promotional information and literature will carry the Steelfab logo and Slogan and the flow of quality finish will carry through to all aspects of design, manufacture and installation.

At the outset the client will be provided with brochures and all water calculations, including liner samples and generic technical data sheets.

As the project progresses through the system specific data sheets, General Arrangement Drawings and other information may be provided. In all cases this information will continue to carry the same professional feel and presentation.

Once the project is awarded, and depending on the size and duration of the project, the client will be furnished with monthly progress reports of the status of the project.



At the completion of the project, the client will be provided with a "hand over" package. This will include the final inspection and commissioning sheet, 'As Built Drawings' and a copy of the commercial/industrial operation and maintenance instructions. This documentation may also include a copy of the commercial/industrial Guarantee Document. This is at the discretion and direction of management.

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HEALTH AND SAFETY POLICY

Overview

This policy is an overview of the Health and Safety policy for Steelfab Water Solutions.

The company covers several areas of operation from office administration, sales and engineering design departments, steel and sheet metal engineering workshops, liner manufacturing workshops through to site assembly and installations of our products on site.

Steelfab management is committed to providing a safe workplace for all workers in the organization.

Responsibilities and Authorities

The Steelfab Health and Safety Policy is designed with specific roles of responsibility throughout the organization.

Being a smaller company, Steelfab designate the individual department managers as the safety manager for their specific area or department.

The safety manager for the company is Kelvin Turner.

Managers of the respective departments are as listed below:

Office and Administration
Steve Eggers

Commercial Sales and Engineering
Kelvin Turner

Sheet and Metals Workshop
Colin Owens

Liner Division
Acdiel Alexander

Site Assembly Team
Erro Wilkinson

All staff within the organization are required to read, understand and agree with all aspects of this policy. Staff are also requested on an ongoing basis to make suggestions of areas that can be improved to provide a safer workplace and where procedures or equipment can be changed or modified to improve the overall safety and wellbeing of the workplace.

Steelfab Water Solutions conduct monthly safety meetings with managers of all departments to monitor the individual areas of the business and make changes to procedures, where applicable, and discuss any suggestions that have been raised by staff throughout the preceeding month.

Employee Representation

Each department has a representative that will take part in the safety management meeting to witness the meeting and voice the concerns of his workmates and report back to them with the results of discussions in the meeting and any changes that relate to their workplace.

Safety Coordinator Role

Given the size of the organization the role of safety coordinator is taken by the safety manager. This allows for the Safety Management Plan to develop alongside other operational procedures within the organization.

Ongoing discussions are held weekly as part of our production meetings to reduce the safety issues in the workplace and to keep up with new and innovative ideas to improve the overall health and safety of our workers.

The Safety Coordinator is also responsible to ensure that all relevant PPE and safety equipment is available at all times to the workers and to ensure they adhere to the

company requirements that may be used at all times where the task requires.

The Safety Coordinator will liaise with the individual department Safety Managers to communicate company Safety Requirements to their respective staff.

Occupational Health and Safety Meetings

Steelfab Water Solutions currently conduct monthly Occupational Health and Safety Meetings. These meetings are initially between managers of the departments within the company and then opened up to the staff for their involvement and input. These meetings are designed to deal with any complaints or concerns of the staff and to identify areas of the organization's safety that can be improved. Once the concerns will be taken on board and procedures or equipment changes implemented.

Internal House Inspections

Steelfab conduct weekly inspections of each department to identify safety hazards or breaches in the workplace and to identify areas that can be improved for discussions at the next meeting.

These inspections are supported by all staff, given the positive effect on their well being and job satisfaction.

All inspections, meetings and discussions are noted and recorded. All meetings have minutes generated and circulated to department managers for discussions with the staff in their respective departments.

Each Department has a log sheet where the suggestions from the staff are written down for discussions at the next meeting. Each item on the list is discussed and results of each discussion are relayed back to staff.

Documentation and Evaluation of Risks

Each department is in the process of conducting JHA and Risk Assessments for all facets of the operation to produce written procedures for all repetitive tasks and individual JHAs and "take 5" evaluations of one off tasks either within the facility or on site.

The Quality Manager is responsible for the implementation of these systems and will conduct the preparation of these JHAs and preparation of the work procedures. Documentation will be presented, filled and held in each work place for constant re evaluation and updating as tasks change and develop.

All of this documentation becomes part of our existing quality system.

Training

Steelfab Water Solutions are committed to offering ongoing training to our workers to enhance the productivity of our operations and the wellbeing of our staff. Steelfab have apprentices and trades people on staff and seek to maintain a healthy and interesting workplace by ongoing training and a variety of work.

Steelfab also provide all training required for site specific tasks including Confined Space Training, Working at Heights, Basic First Aid, MARCSTA and all other relevant training courses to ensure that our site technicians are up to date and familiar with all facets of their work tasks and of all site specific training and safety requirements.

Steelfab are also ensuring that one member of our team both on site and in the workshops is a trained First Aid Officer.

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Routine Inspections

Steelfab Water Solutions have a documented inspection procedure that requires that, on a weekly basis, the entire workplace is inspected and documented. Evidence of this inspection is maintained in our Safety Manual. The results of this inspection are discussed at weekly production and safety meetings and any items requiring attention are acted upon immediately in order to rectify any potential hazards.

Steelfab is moving to ensure that the Health and Safety System is fully implemented and operational at all times, and that the attitude of our staff becomes singularly focused on safety.

The ongoing agenda point for weekly production meeting is the safety inspection report. This ensures that the inspection is never overlooked.

Inductions

Steelfab Water Solutions have a generic Safety Induction that is required for all new workers starting in our operation. Given the size of our operation, the induction is brief and to the point. The induction includes a requirement for our new staff member to read and confirm that they understand the Quality and Safety Policy, and then sign an declaration that they agree with the processes and systems we have implemented, and that they agree to abide by these systems and to work in a safe manner, utilising all appropriate safety equipment and PPE appropriate to the task.

Visitor Procedure

All visitors to the Steelfab Water Solutions facility are required to remain out of the workshop areas at all times unless accompanied by a Steelfab Water appropriately trained for access to that work area. Access to the work area will also require the use appropriate PPE for the area concerned.

The visitor is to remain at all times with the Steelfab Staff Member and is not to be left unattended unless approval is given by management for a specific reason i.e. equipment repair, servicing or installation.

The safety of Steelfab Staff and of the visitor themselves is the primary objective of this protocol. Other objectives are in no specific order of information, processes and equipment.

Accident Reporting

There is an existing protocol in place within Steelfab that all accidents and injuries, no matter how trivial, are reported to the supervisor and appropriate medical attention can be sought and provided to the employee. Minor injuries can become more serious if not dealt with appropriately at the time of the incident. It is the responsibility of the Employer to ensure that appropriate and timely action is taken to ensure the safety and well being of the employee and as such this protocol exists and will be adhered to.

Duty of Care requires such action be in place for each and every incident.

Any incident that occurs even if injury does not occur must be reported. Accidents causing damage or near misses that could have the potential to cause damage to equipment or injury to workers must be reported, and as a result procedures be put in place to ensure there is not a recurrence of the same incident.

Careless behaviour or wilful damage to equipment or materials will not be tolerated and will be dealt with accordingly.

Accident Data Collection

A register is put in place where all incidents and accidents are to be recorded by the manager of the department.

The register is brought to the weekly production meetings for discussions by management. These discussions will result in procedures or protocols being altered—if required—to remove the hazard that caused the incident or accident, or action will be taken to retrain the staff member or disciplinary action could be taken if it was found to be wilful or careless behaviour that caused the incident or accident.

A master register will be maintained of all incident and accident reports once they have been completed and finalized. Unresolved reports will be held on the active log book with the department manager and will remain until the matter is finalised to the satisfaction of the department manager and the safety manager.

External Contractor HSE Requirements

In situations where Steelfab Water Solutions requires the services of an external contractor for part of the works on a contract we undertake, the contractor is made aware of the Steelfab HSE Health and Safety Policy. The Contractor will be required to agree to the protocols outlined in this policy and will fall under the requirements of the policy as would any employee of Steelfab Water Solutions.

The only exception from this requirement will be where the contractor is able to produce to Steelfab Water Solutions their own Health and Safety Policy that provides adequate controls and reporting to mirror the Steelfab Water Solutions' System.

Any work carried out directly under the "Steelfab" banner either on our premises or on site will be deemed to be "employed by" Steelfab and as such will report directly to the Steelfab Site Supervisor who will be our site Safety Manager. All incidents, accidents or near misses where personnel or equipment could be at risk will be required to be reported to the Site Safety Manager.

Sub-contractors employed by Steelfab on site for the assembly and installation of our products and services will also be deemed to be "employees or staff members" of Steelfab Water Solutions and will also fall under our HSE Health and Safety Policy.

All contractors and subcontractors will be required to read our HSE Safety Policy, carry out a project specific safety induction and sign a contractors declaration agreeing to abide by the Steelfab Safety Protocols and to abide by any "Site Specific" Safety protocols outlined by our client on site.

Document Control

The Safety Manager will be responsible for the overall document control for the HSE Safety Management Plan for Steelfab Water Solutions.

The Safety Manager will have the authority to select an appropriately competent person to carry out, or assist with, safety inspections in the work place.

The Safety Manager and/or his authorized inspector will have the authority to remove any plant or equipment from services (in discussion with the department manager) if it is deemed that there is an immediate risk or potential hazard. If the particular equipment, tool or material can be altered, repaired or rearranged resulting in the risk or hazard being removed, the plant

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or equipment can then be immediately returned to service. Details of records of the hazard are to be recorded and details of action taken to rectify the situation are also to be recorded and signed off by the Safety Manager and the Department Manager.

Desired Outcomes

The Desired Outcome of the HSE Safety Management Plan and Policy is to remove all hazards from the work place, instill a mindset of safety before production in the minds of both staff and management and ultimately increase production, profitability and safety—and the well being and satisfaction of our staff and contractors.

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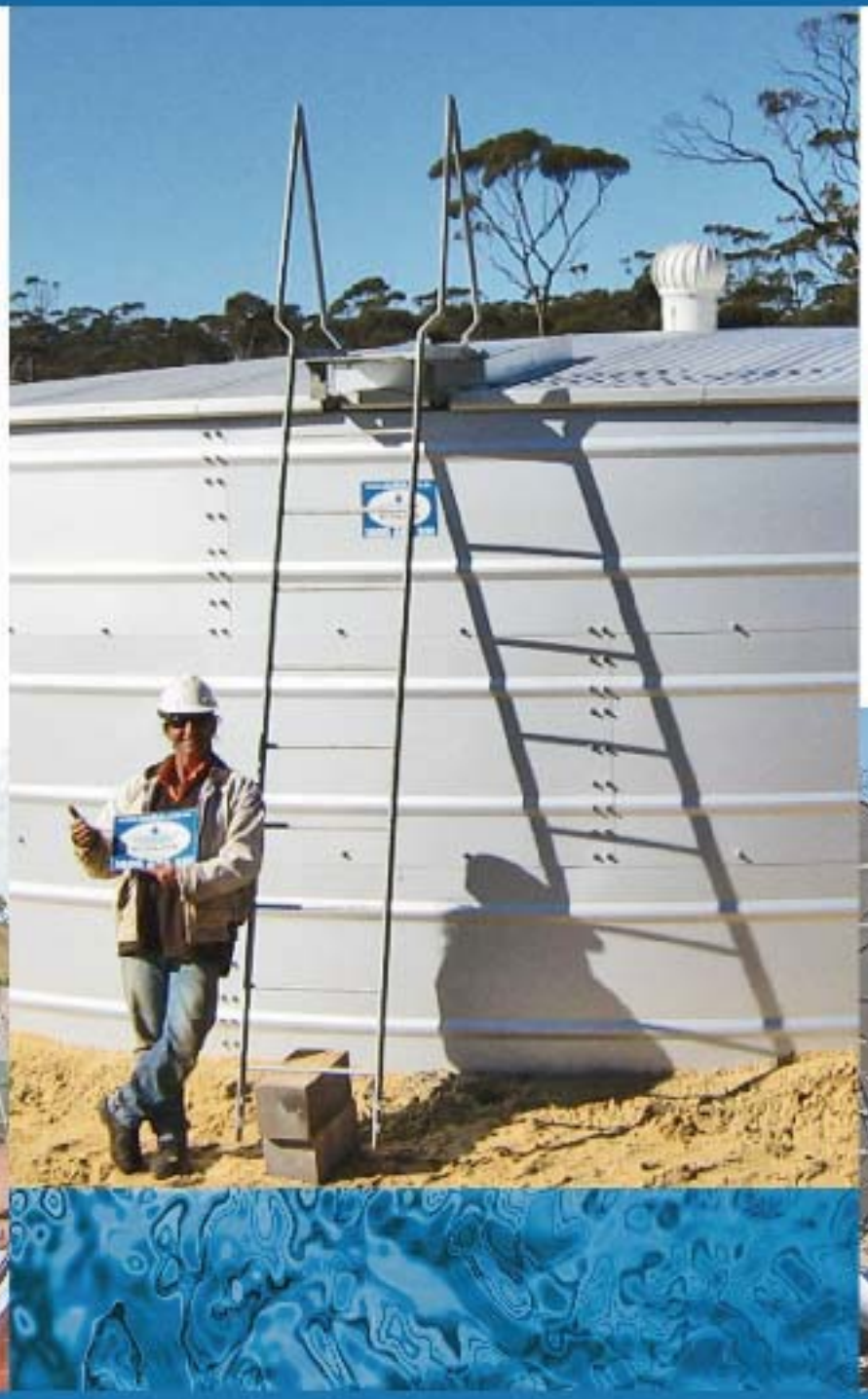
QUALITY OF SERVICE

We provide an unequaled level of service in providing solutions to all aspects of water collection, storage and pumping—from initial site planning to ensure correct tank and pump combinations are chosen, through to installation by our highly skilled and experienced team, who clean up the site after installation.



QUALITY OF MATERIALS

All the materials used in our tanks are of superior quality; from the best steel available and the liners that we manufacture in-house, to the stainless-steel fittings in the Whirlybirds.

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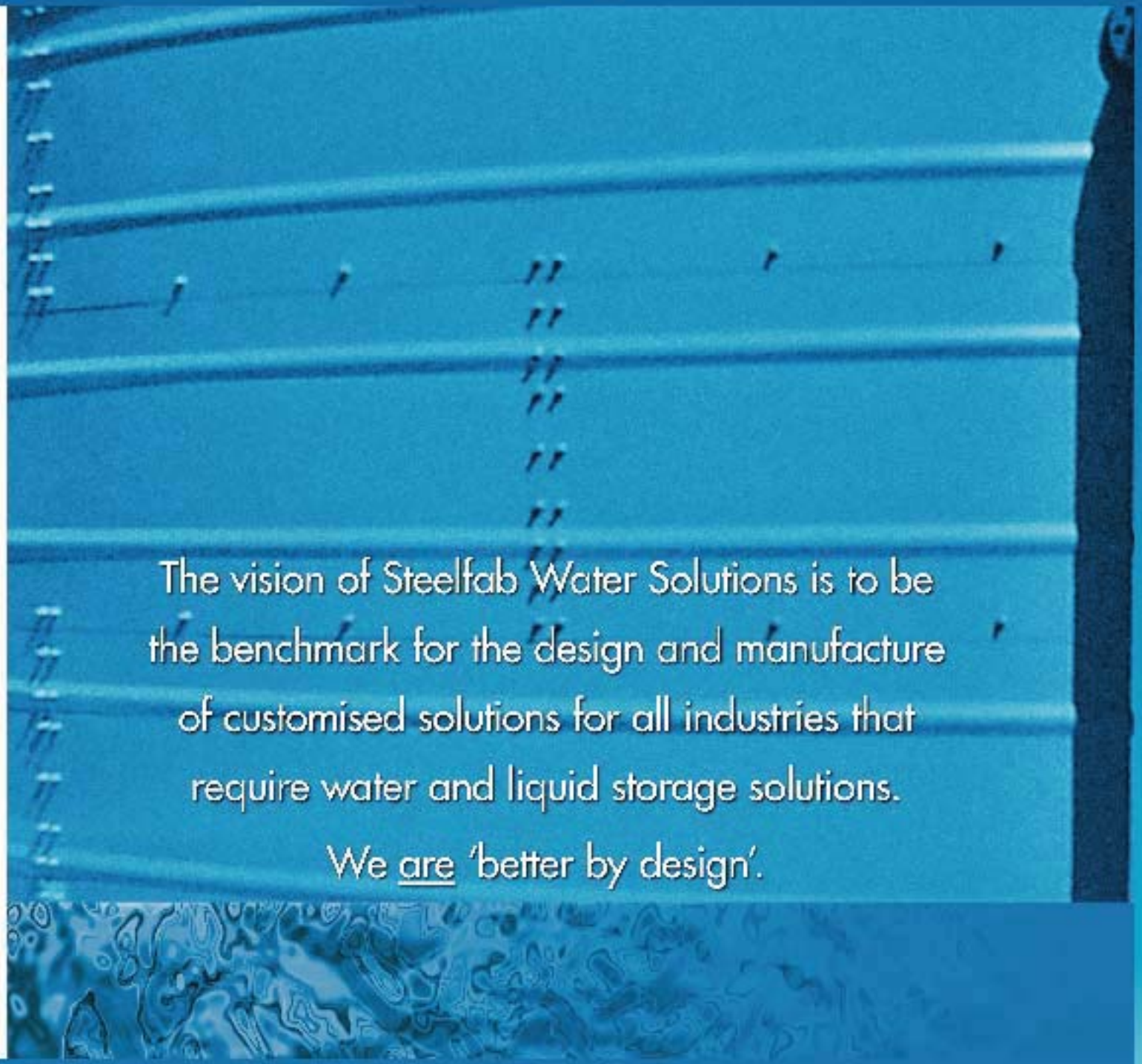
WE ARE KNOWN FOR:

- Innovative problem solving;
- Excellence in design engineering;
- Doing what we say we will do, when we say we will do it;
- Finishing projects on time;
- Delivery dates that are firm;
- Sticking to the agreed loan budget;
- Developing an excellent rapport with our clients' management and engineering divisions;
- Our excellent communication skills—we know how to listen to our clients and to ask the right questions in order to provide the best solutions to suit each and every unique and individual requirement.



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COMPANY ASSOCIATIONS

We understand companies are looking for a "one stop shop" for advice, products and systems.

Our associations with companies that can add value to our range of products is critical to our expansion—companies offering pipe line and pump stations systems, waste water treatment systems, potable water and filtering systems and reverse osmosis and desalination systems. All of these applications require water storage for both raw water and potable water, both of which we are able to offer.

We directly offer these services to our clients as either the principal contractor supplying the complete system, or, once the initial information is in place, arranging for the client and the system manufacturer to meet and they then become the principal contractor. We then supply to the project via the system supplier.

Steelfab Water Solutions supply the tankage requirements for the project, and the client is happy that he has been introduced to a suitable supplier that will look after all aspects of the project.

We are then in a position to work with these associated companies to fine tune and customise our products to meet specific system requirements.

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MARKETS

Steelfab Water Solutions's experience in water solutions to water and liquid storage is over the world:

- Arabian Gulf
- Tahiti
- Papua New Guinea
- Africa
- Indonesia
- Iraq
- West Indies

Norfolk Island

Jamaica,
Public Housing Project

Tahiti

Baghdad, Iraq
Bechtel

World Islands Project UAE

Flexible Storage Tanks – UAS

Flexible Storage Tanks

- Can be fabricated in virtually any configuration or size.
- Designed for rapid positioning.
- Made from durable polymer coated fabrics specific to application.

Bell Avon is part of the Avon Rubber group and Specialieses in flexible fabrications. Originally manufacturing skirts for hovercraft and air cushion vehicles, the company has expanded into other areas where high performance fabrication is needed.

Temporary Storage Tanks

Bell Avon manufactures flexible storage tanks and bunds in both polyurethane and nitrile rubber. These range in size from 20 to 200,000 litres.

Polyurethane Tanks

Avon's polyurethane tanks are well designed and manufactured to a high specification, giving excellent performance in a wide variety of conditions.

These tanks are "pillow" or "onion" shaped depending on size and are used by the military in all climates around the world. However, in extreme sunlight and high temperatures, it is advisable to check polyurethane tanks daily for signs of leakage.

Nitrile Tanks

These next generation nitrile tanks offer outstanding performance and longevity, particularly, even when filled with fuel and stored in conditions of extreme heat and sunlight.

The specially formulated nitrile coated fabric has been designed to reduce wicking, preventing damp patches from appearing on the outside of the tank.

Comprehensive tests have shown that nitrile tanks can last 6 times longer than polyurethane tanks without leaking. This gives military customers confidence in the product during extended deployments or repeated use.

The nitrile material also offers much greater protection against nuclear, biological and chemical agents, allowing for safe storage of water whatever the threat.

New Products

Bell Avon's design team specialise in working with customers to develop new products. These include a new water purification system for the US military, which fits on the back of hummer. It has 3 tanks and can be easily constructed in theatre tanks to its novel design.

Capacity		Dimension Length		Dimension Width	
Gallons	Litres	Feet	Metres	Feet	Metres
100	379	5	1.5	1.5	1.5
250	946	6.2	1.9	6.2	1.9
500	1,893	7.8	2.4	7.8	204
1,000	3,785	9.8	3	9.8	3
2,000	7,571	12.2	3.7	12.2	3.7
3,000	11,356	13.8	4.2	13.8	4.2
4,000	15,142	15.2	4.6	15.2	4.6
5,000	18,972	16.3	5	16.3	5
1,0000	37,854	20.5	6.2	20.5	6.2
2,0000	75,708	27.2	8.3	27.2	8.3
3,0000	113,562	32.3	9.8	32.3	9.8
4,0000	151,416	36.7	11.2	36.7	11.2
5,0000	189,270	40.7	12.4	40.7	12.4
100,000	378,540	55.8	17	55.8	17
300,000	1,135,620	93.5	28.5	93.5	28.5

fabric solutions

Australia pty ltd

Turnkey design & Manufacturing Solutions for :

- Liquid Storage Blad ders
- Pillow Tanks
- Industrial W eather Curtains
- Geomembrane Liners & Floating Covers
- Flexi Tanks
- Tank Liners
  Commercial - Industrial - Domestic
- Bund Liners
- Secondary Containment Liners


Portable Liquid Storage


Air Inflated Bund Liner


Fuel Storage Solutions


Specialty Bunding


Environmental Solutions

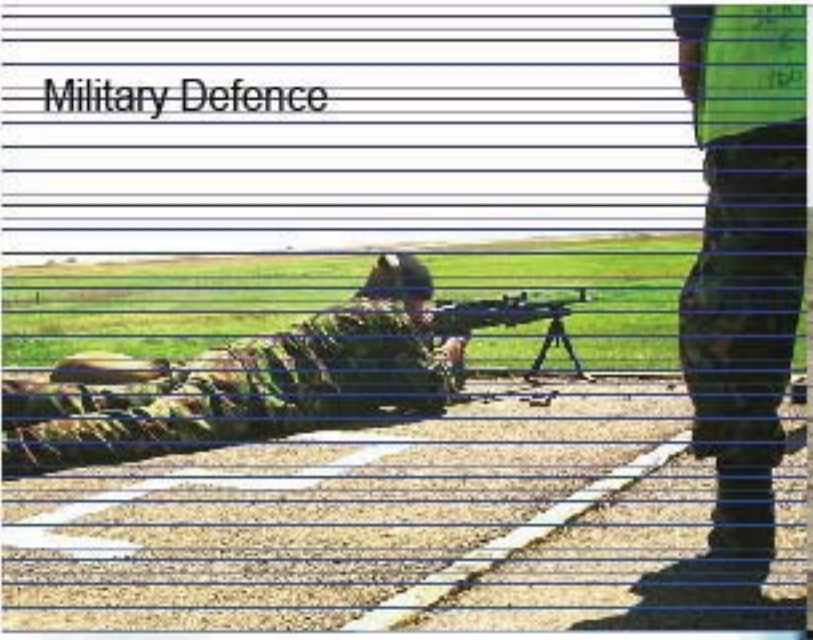

Weather Curtains

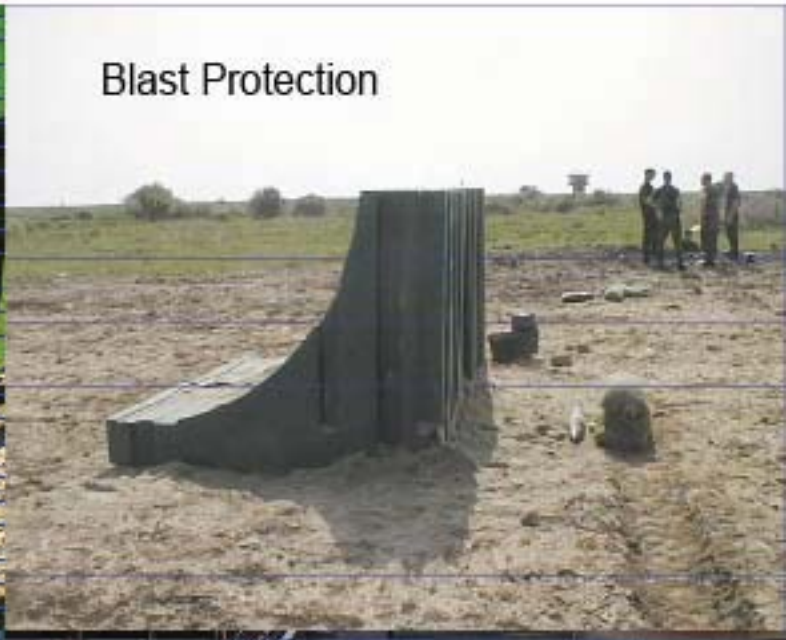

Affordable Liquid Storage


Customank Liners


Custom Manufacture

aquabarrier®
systems limited





Temporary, Demountable Barriers, for Retaining Liquids,
Bunding, Coastal Defence, Fluvial Flood Defence,
Military Defence, Blast, Ballistic Defence and Security Control.

aquabarrier®
systems limited

The Aquabarrier comprises of a single hollow polyethylene rigid module, produced using a rotational moulding system. It is light weight (80 kilos) when empty, making it easy to move and deploy, but when filled, it can weigh up to 10000 kilos depending on the type of fill material or liquid used.
It is easily decommissioned for storagepr can be covered with localised material for permanent deployment. It can be easily joined to make an extended wall with no stipulation as to its overall length.
The proven flexibility of the product has already been demonstrated, it has been accepted as a primary flood defence by the City of York in the UK. Already other government agencies are looking at the system to defend against flooding in other areas of the UK, and in the USA.

Through continual development the barrier has undergone trials supervised by the British Army's Royal Engineers Export Support Team. During these trials 450 rounds of varying ammunition were live fired at the barriers, at ranges of 100metres to 10metres. The calibre of round varied from the 7.62 mm to 9.0 mm, none were able to penetrate through the reverse side of the barrier. Detonation of a 155 mm artillery shell 60 mm from the blast face of the barrier, again proved that the barriers could withstand such a force without compromising the integrity of the barrier. Polyethylene was chosen as a material because of its natural resistance to fragmentation, cracking and crazing, and its ability to absorb impact without causing ricochet or rebound. The barrier is lightweight and requires no heavy machinery for deployment. To increase the factor of safety and counteract slide integrated security mechanisms can be inserted into the purpose mouldings in the base of the barrier.

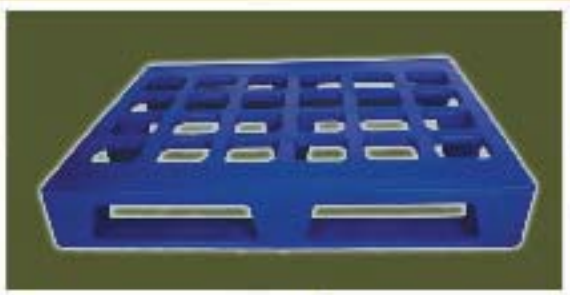
These trials show the diversity of the barrier, they may be deployed in the following :
Flood Defence, Reservoirs, Liquid Retention, Coastal and Fluvial Defences. Military applications include Ballistic Defence, Blast Defence, Security Checkpoint, Traffic Management. The barriers are also available to Civil Defences, Non Government Organisations, Police and Private Security Companies. A range of colours to suit your requirements.

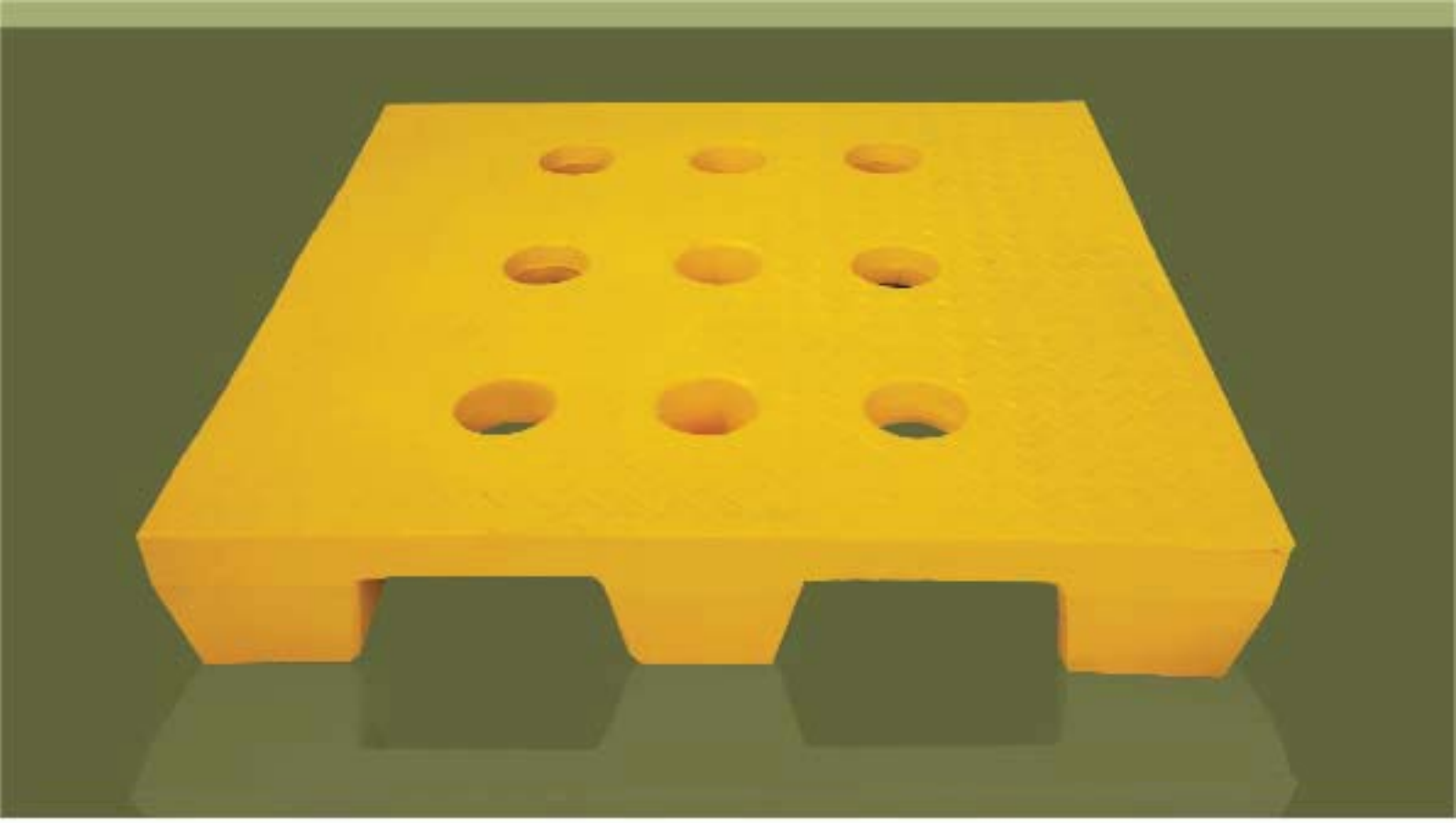
Barrier Dimensions

Height	Width	Depth	Weight
1.5 metres	1.0 metres	2.2 metres	80 kg

Aquabarrier Systems and Stars Poly Tanks Factory L.L.C. have recently formalised an agreement to produce the barrier in the U.A.E. for the Middle East area

PLASTIC PALLETS





PP1 - 1W

Model Name	Dimensions (mm)	Weight (kg)	Dynamic Load (kg)	Static Load (kg)
PP1 - 1W	1000x1000x175	12.5	600	1200
PP2 - 1W	1100x1100x115	12.5	600	1200
PP3 - 1W	1200x800x175	12.5	600	1200

Options

To increase dynamic and static load of the pallet we can do
1- Reinforce the pallet with steel structure inside.
2- Inject polyurethane foam inside the pallet.

STARS POLY offers a wide variety of plastic pallets in measures and pay load usable in different areas of application STARS POLY pallets are as well as light - weight and volume reducing one-way pallets and two - way pallets.

Features

* Light weight.
* No fumigation required.
* Easily stackable.
* Lower storage and transport cost.
* Clean and sanitary.
* Easy and safe handling.
* High load bearing capacity.
* No splinters or nails.

PR - 2W

Model Name	Dimensions (mm)	Weight (kg)	Dynamic Load (kg)	Static Load (kg)
PR - 2W	1200x800x125	6	700	1500

PRS - 2W

Model Name	Dimensions (mm)	Weight (kg)	Dynamic Load (kg)	Static Load (kg)
PRS - 2W	1200x1000x145	9	1000	2000

Cleopatra

ART				
VSC35	35	30	22	28
VSC45	45	40	32	37
VSC57	57	46	37	47
VSC85	85	75	47	60
VSC95	95	80	58	74

Zalaah

ART				
VSZ34	34	23	17	25
VSZ42	42	28	20	32
VSZ50	50	31	24	37
VSZ66	66	38	34	49

Prince

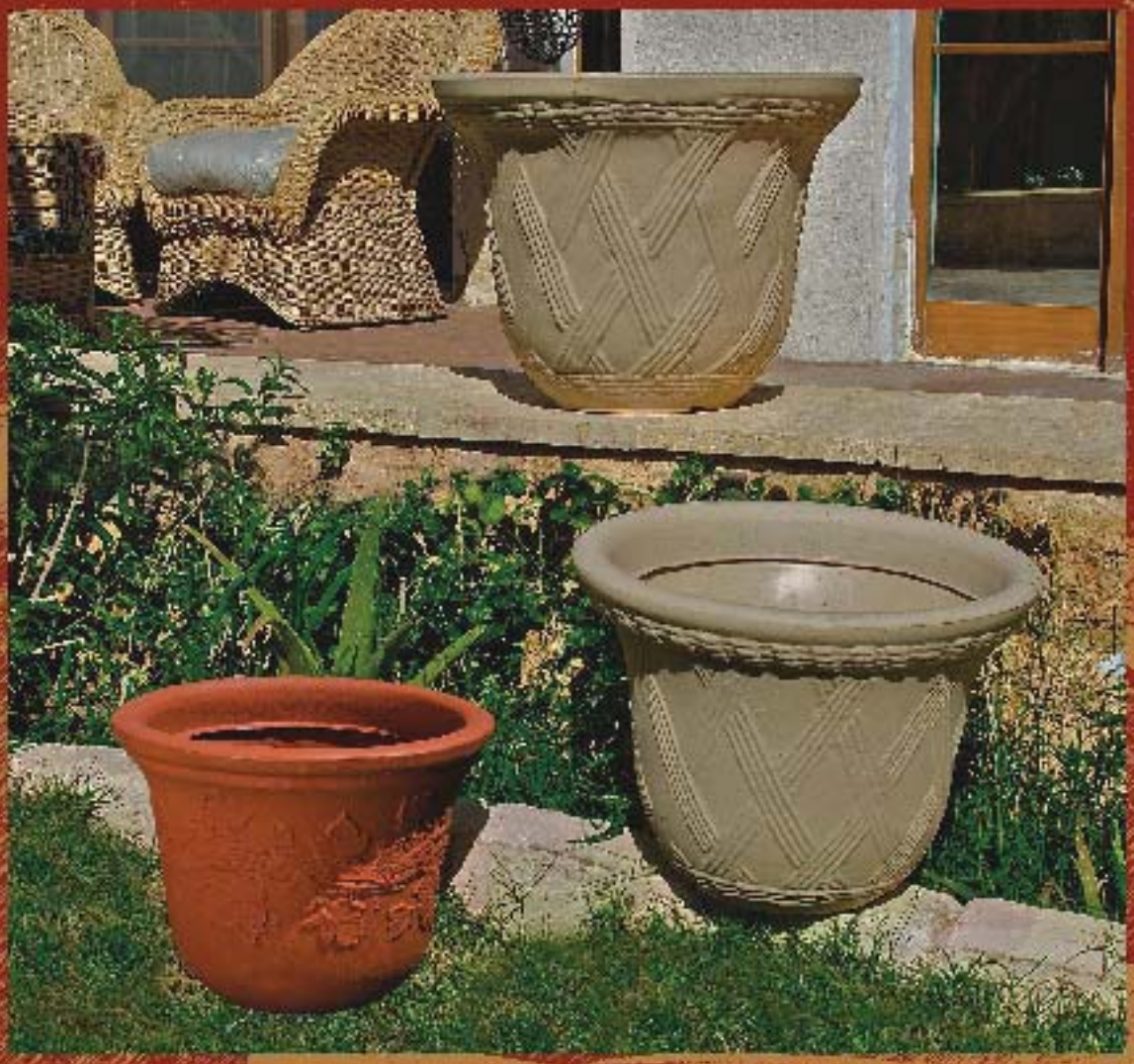
ART				
VSCP30	30	20	24	50
VSCP45	45	30	32	72
VSCP64	64	43	40	86

Hector

ART				
VSCH47	47	33	32	45
VSCH59	59	40	40	60
VSCH73	73	56	50	79

Romio

ART				
VSCR34	34	25	23	46
VSCR40	40	31	26	55



Sona

ART				
VSS34	34	28	15	26
VSS43	43	36	19	33
VSS53	53	44	26	41

Dalia

ART				
VSD33	33	26	15	25
VSD43	43	34	21	32
VSD54	54	44	27	41

Farah

ART				
VSRF83	83x38	68x23	68x22	31

Jasmin

ART				
VSRJ72	72x31	64x23	67x27	27

Lilly

ART				
VSRL45	45x41	38x25	40x26	19

Zahwa

ART				
VSRZ59	59x29	54x24	50x20	26

Sicilia

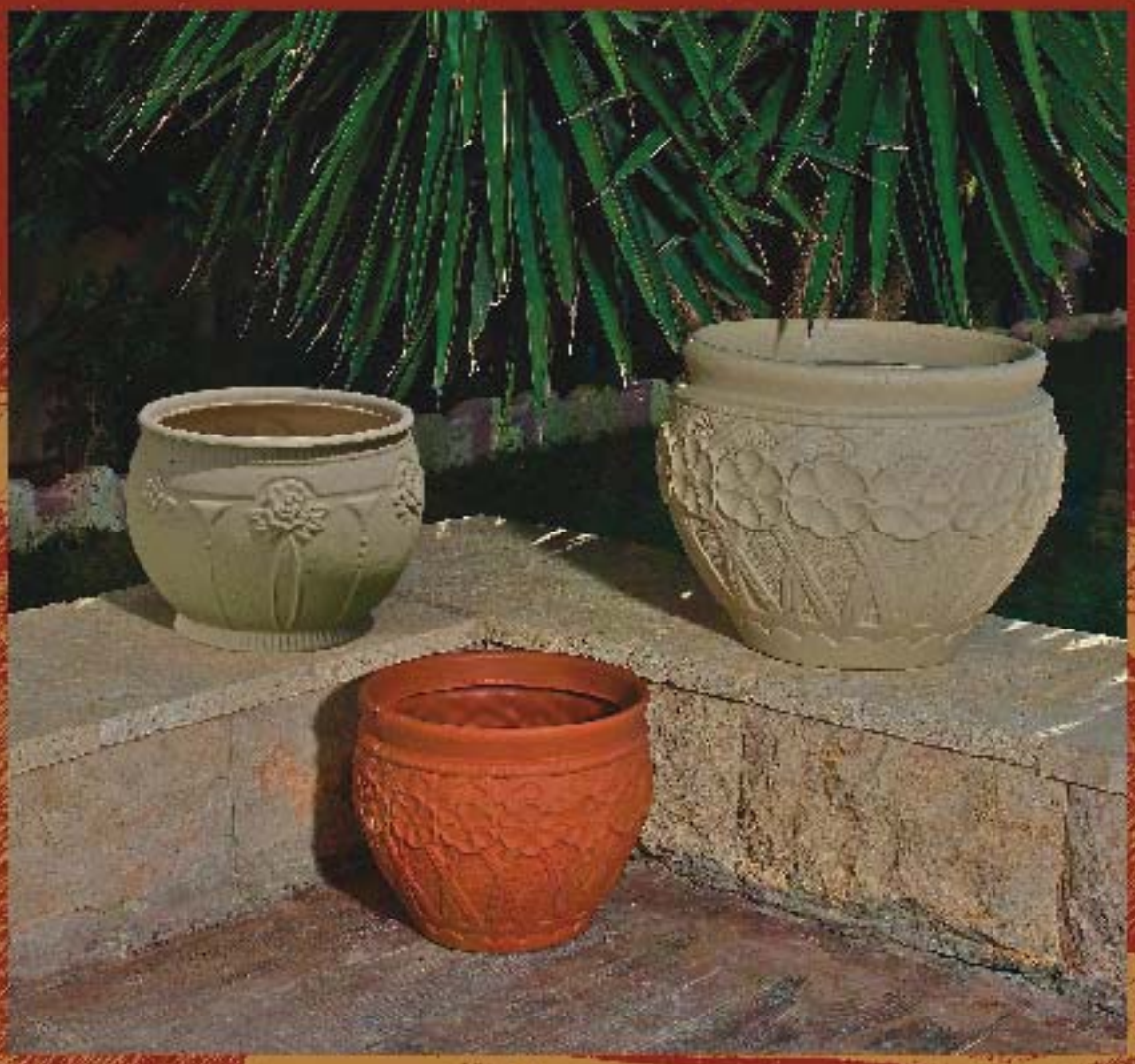
ART				
VSRS37	37x23	32x18	32x18	17
VSRS47	47x29	41x23	41x22	20
VSRS58	58x33	51x27	51x26	23

Maya

ART				
VSM41	41	26	22	30
VSM50	50	31	25	37

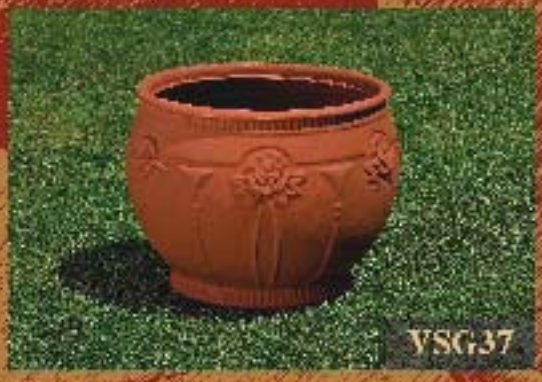
Lilly

ART				
VSCL31	31	26	15	22
VSCL36	36	30	20	24



Flora

ART				
VSF34	34	27	18	26
VSF46	46	37	25	36

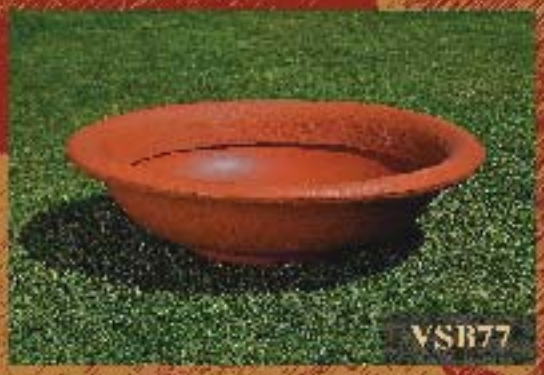


Gardenia

ART				
VSG37	37	30	25	28

Antionus

ART				
VSA50	50	42	20	18
VSA60	60	52	24	19



Bowl

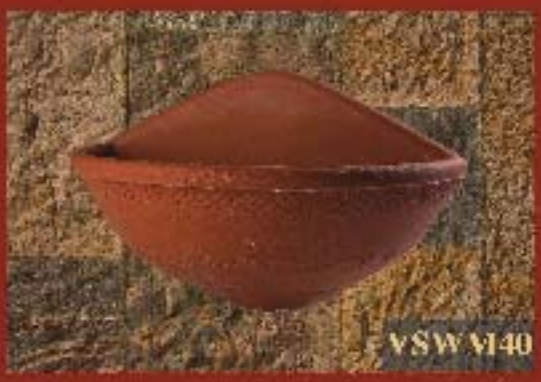
ART				
VSB77	77	64	35	21

Mahogany

ART				
VSRM92	92x21	84x13	91x21	17

Teak

ART				
VSRT68	68x22	61x15	60x14	17
VSRT87	87x23	80x17	80x16	19



Vinous

ART			
VSWV53	53x24	47x19	31

Miro

ART			
VSWM40	40x22	36x18	24

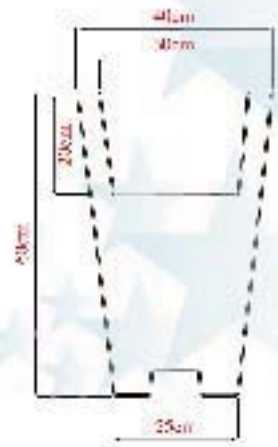
ART	
TQ33	33x33

ART	
TO41	41x28
TO69	69x25

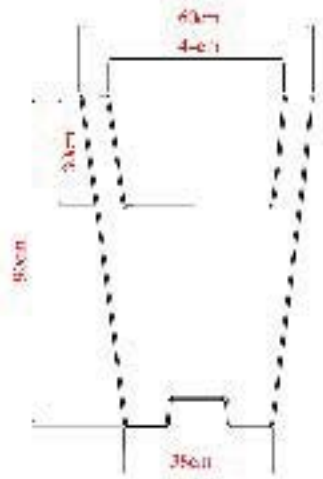
ART	
TC20	20
TC25	25
TC30	30
TC38	38
TC47	47
TC55	55
TC65	65

ART	
TR55	55x29
TR67	67x28

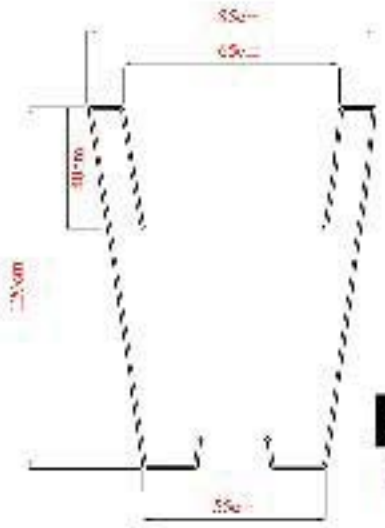
MODERN POTS :



ART					
M 60	40	30	25	60	20



ART					
M 90	60	44	38	90	30

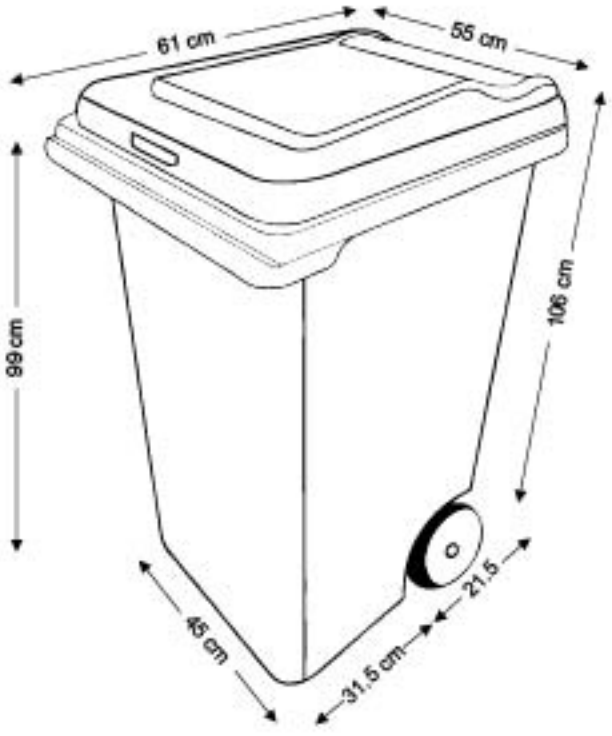


ART					
M 120	85	65	55	120	40

Colors

GARBAGE BIN :

Available in different colors
Produced of polyethylene that is approved by the International Health Association.
Can be equipped with a cover for more control and safety
can be equipped with wheels to move easily
Equipped with carrying holes
Produced in one piece without any seams to prevent leakage
relatively light but very strong compared to other type's
High ability for shock absorbing



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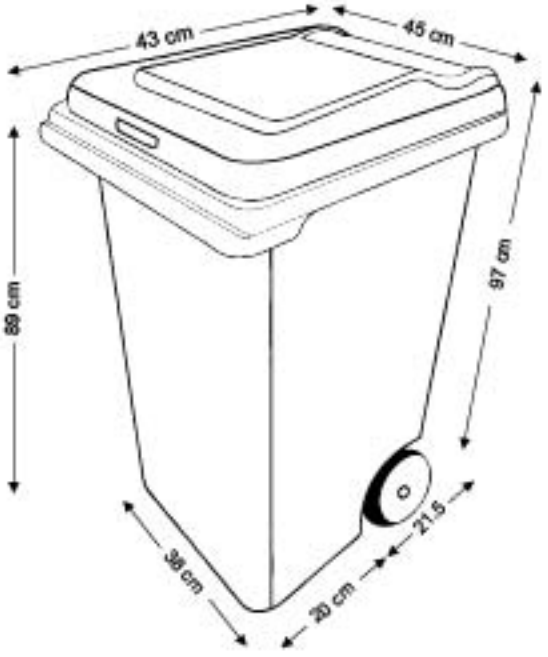

120 Ltr.

Colors