TREADWELL™

COMPLETE **“Fit & Forget”** SOLUTIONS

Sector Guide

WATER & WASTEWATER

ENGINEERING THE FUTURE IN COMPOSITES

www.treadwellgroup.global

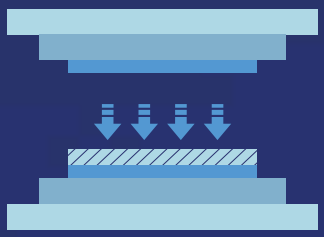
Corrosion Resistant

- Manufactured from premium isophthalic and vinylester resin systems
- Superior protection against corrosive elements in water and wastewater treatment operations.
- Allows the water to be safe and usable according to AS 4020.

Cost Savings

- Longer service life, less maintenance, and life cost savings as compared to other materials.
- Allows better and viable components into the associated framework.

High Strength



- Manufactured by automated pultrusion process.
- Utilises high glass-fibre content and results in unparalleled product consistency.
- Compression moulding and vacuum moulding processes are used.

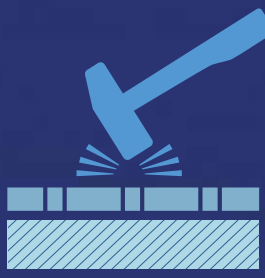
Turnkey Solutions

- Pre-fabricated to eliminate field fabrication and make installation quick and easy.
- Solutions include all necessary accessories.

Customised System

- Our experienced technical team customises designs to meet project specific load requirements.

Durability

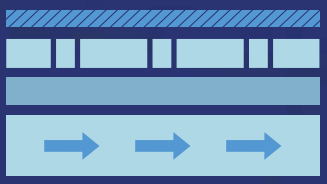


- Highly durable.
- Greater resistance to breaks and twists which ensure better longevity.
- Reduce the harmful effects of added tension on the surface and reliving the framework.

UV Protection

- Exterior coatings and stabilisers provide UV protection and ensure long service life.

Low Profile

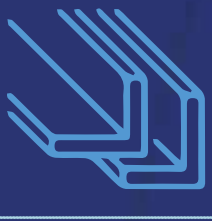


- SureLine® low profile covers reduce the operating cost and size of scrubber units compared to domes.
- Aesthetically pleasing flat covers.
- Eliminate confined-entry issues.
- Provide protection for equipment located on top of the cover instead of below.

Light Weight

- Strength-to-weight properties of FRP reduce loads on tank walls and floors.
- Ease cover removability and installation.
- Can be transported anywhere easily and installed seamlessly.

No Dissimilar Metals



- Eliminates issues surrounding dissimilar metals

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Contents

Quality Policy

Quality is at the forefront of Treadwell's working practices. With over 15 years of manufacturing to the highest quality standards, Treadwell prides ourselves on our reputation for implementing strict quality control measures, and strives to supply products that surpass customers expectations. The company works on a policy of 'continuous improvement'.

Environment Policy

Treadwell is conscious of the impact it has on the environment and its associated responsibilities. The company is committed to ensuring its operations satisfy legal obligations and other responsibilities. Treadwell remains committed to sustainability.

What You Get When You Work with Treadwell

Specialised Online Tools

Conveniently located online, our selection tool allows users to fill in selection criteria based on each product brand we carry and will recommend a product suitable to your needs. Our product information has been imprinted on the tool to provide ease of outline and inspiration to architects, engineers, designers and other users. Users can also find all our product files in PDF, DWG, STEP etc. files to download for each of our products.

Visit our website at https://www.treadwellgroup.com.au/treadspec/ to try out these online specifier tools.

Friendly & Professional Design Support

Whether you're looking to upgrade or completely revamp your rail infrastructure assets, we can help support your design services across all stages of your project lifecycle. Our qualified and experienced engineering team have provided turnkey as well as purely design-based projects. With a knowledgeable team, we are able to provide solutions to fit your requirements.

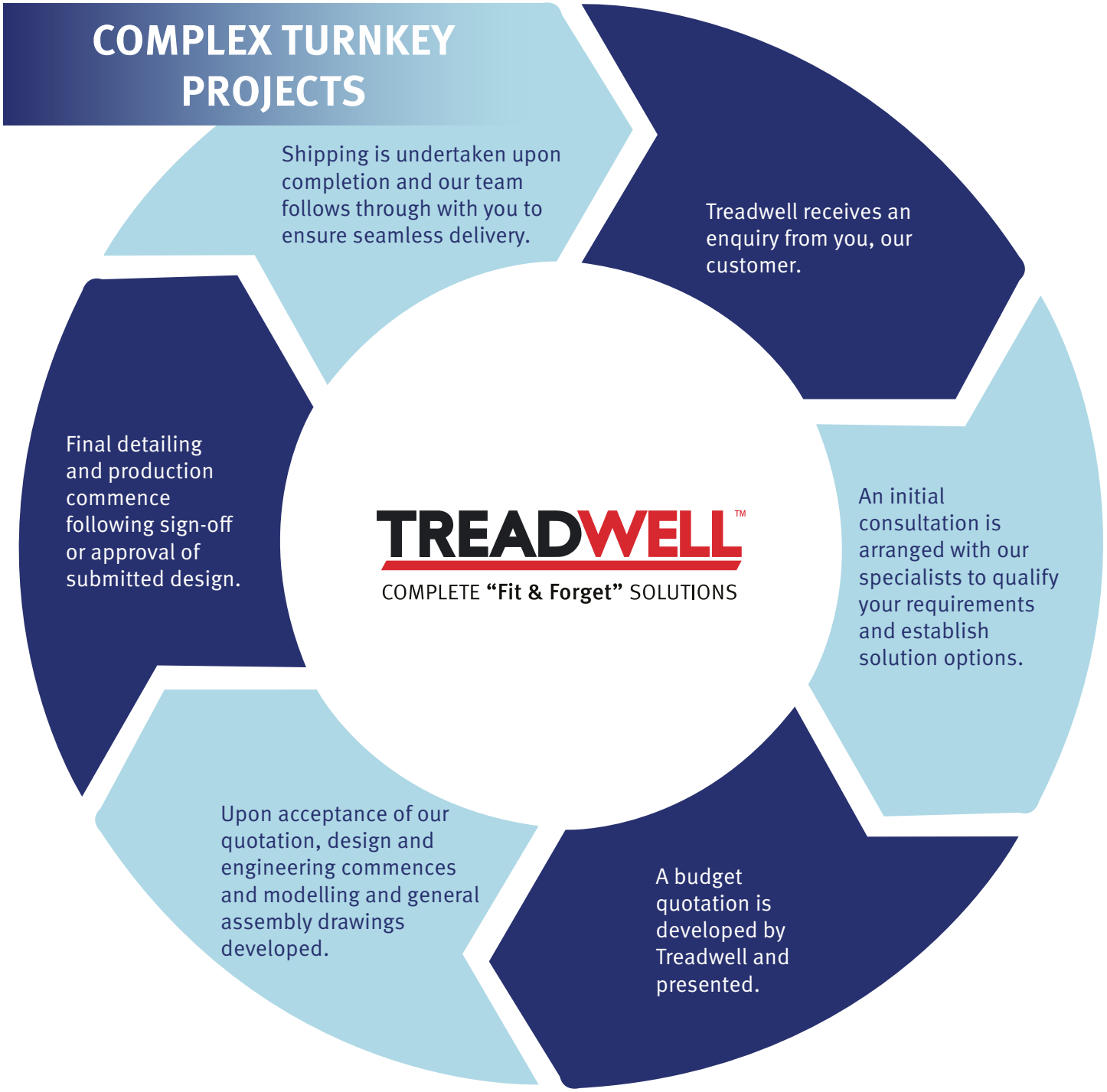
Cutting Edge Technical Information

Treadwell has a LEAN manufacturing facility, approximately 4000m² under one roof. Our automated CNC equipment, including state-of-the-art 90,000 PSI waterjet cutting system and beam line ensure minimal material wastage, and as such, eliminates excessive costs. Our internal design engineering department is able to provide design expertise and sign off engineering in all states of Australia (RPEQ and NT certified), and an on-site Quality Assurance team to perform the necessary checks.

With our well-established partnerships with logistics partners across Oceania, complemented by our own fleet of trucks and trailers in Australia, we are able to deliver your projects across the region efficiently and effectively on time and in full.

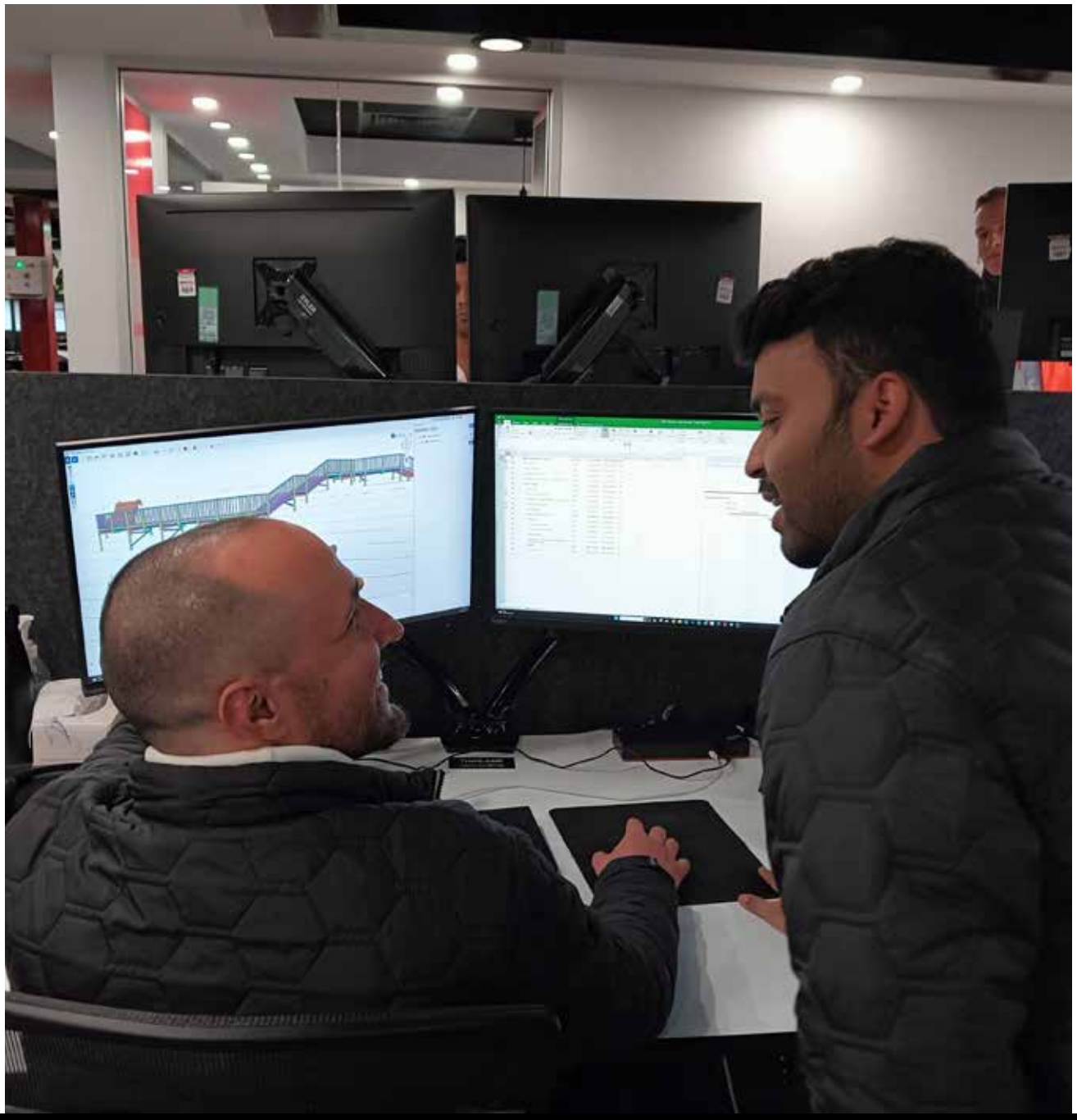
CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Bespoke & Specialised Projects - Our Process Explained



Why Choose Treadwell?

1	Our team of engineers are available to support your design requirements by providing technical expertise and specifications.
2	Our products are tested and meet relevant compliant codes where required.
3	We offer solutions based on practical calculations and data, providing the optimum products for your application.
4	We are an established name in Australia for providing durable and dependable FRP solutions.

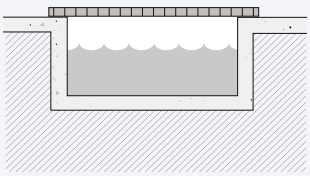


CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

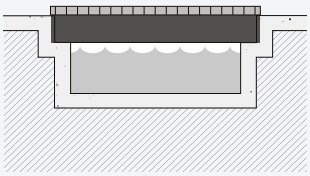
Geelong, Victoria - Black Rock Water Treatment Plant

What are EcoEX™ SureLine® FRP Odour Control Covers?

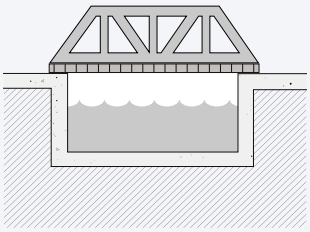
EcoEX™ odour control covers are an engineered solution designed for containing odours, particulate and corrosive gases over tanks and equipment. EcoEX™ offers two odour control panel styles - our SureLine® & SureLine® HD customisable odour control cover systems which are manufactured from premium grade fibreglass resins of your choice or as advised by our engineering assistants. Our customised tank covers contain the odours emitting from the water mass. The volatile organic compounds (VOCs) that cause the foul smells are halted with the SureLine® covers which result in an effective odour control system.



Flat, Clear Span



Flat, Beam-supported



Flat, Truss-supported

SureLine® & fixed hatches. Victoria, Australia.

SureLine® removable pump cover. Victoria, Austalia.

SureLine® Tank Covers

SureLine® covers are used in many wastewater and sewage treatment applications the globe over.

SureLine® odour control cover systems is a lightweight custom extruded interlocking panel system that can be designed, engineered and fabricated to suit the specifics of your application. SureLine® can be designed as a load-bearing platform solution, enabling operators to safely reach covered areas. The SureLine® system can also be designed as a non-trafficable odour control cover system, meeting AS1170 requirements. SureLine® is a lighter solution to that of its stronger counterpart, SureLine® HD, and is ideal for lighter smaller span tanks.

SureLine® odour control cover systems also offer a range of inspection hatches, maintenance hatches and full access hatches with safety grates installed. Covers can be manufactured in whole sections or available as an option in certain sizes to suit specific requirements. SureLine® covers may be designed to incorporate take off points and access where required.

SureLine® covers are sealed systems designed to contain odours and/or operate in conjunction with scrubber systems that draw the trapped gases off and treat them to eliminate odour, offering a 99.9% capture rate.

Our offerings for SureLine® come in the form of:

- SureLine®
- SureLine® MD (Medium Duty)
- SureLine® HD (Heavy Duty)

Applications

Inlet Works & Grit Covers	Chlorine Contact Basins
Clarifiers	Filtrate Storage Tanks
Aeration & Equalisation	Chemical Process Tanks
Sedimentation	Balance Tanks
Sludge & Gravity Thickeners	

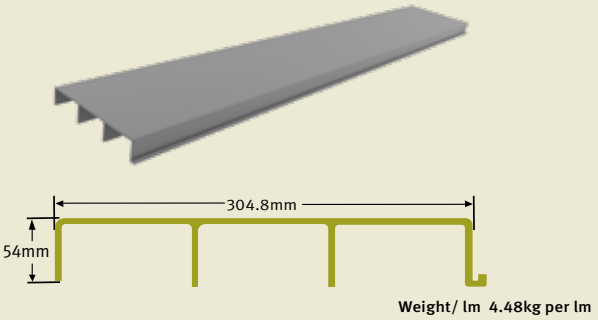
SureLine® & various hatch types. Queensland, Australia.

SureLine®

SureLine® covers are light weight, low profile odour control covers designed for smaller inlet works and provide a range of other applications. EcoEX™ SureLine® systems are easy to install and extremely lightweight with easy to add additional penetrations onsite. SureLine® tank cover systems are ideal for channels, odd-shaped basins, or covers with numerous penetrations where VOCs are present. SureLine® system components include SureLine® FRP panels, FRP beams, access hatches and stainless steel hardware.

Part: SureLine® Standard Panel

Part Number: ARX-SL054

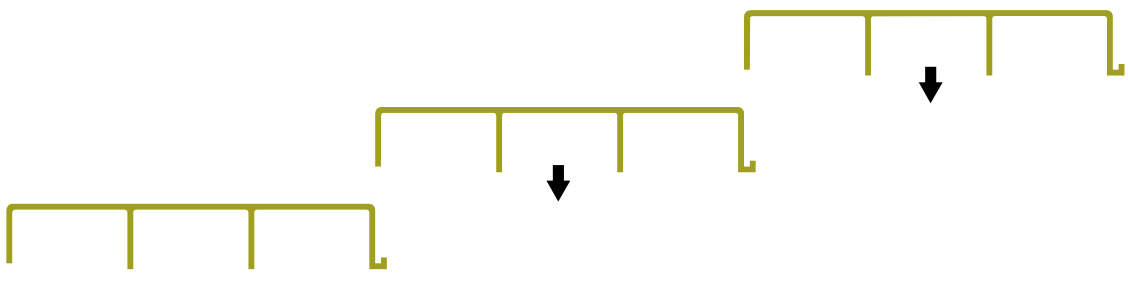


Weight/ lm 4.48kg per lm

A_w	1036 mm²	W_t.	4.48 kg/m
I	765865mm⁴	S	14798 mm³

Span (mm)	Maximum Load (kPa)	Deflection (kPa)								
		L/D=120	L/D=150	L/D=180	L/D=220	L/D=250	L/D=300	L/D=350	L/D=400	L/D=500
400	99.98									80.79
600	44.44							38.27	33.49	26.79
800	25.00					23.59	19.66	16.85	14.74	11.79
1000	16.00				14.00	12.32	10.27	8.80	7.70	6.16
1200	11.11			10.02	8.20	7.21	6.01	5.15	4.51	3.61
1400	8.16		7.62	6.35	5.20	4.57	3.81	3.27	2.86	2.29
1600	6.25		5.13	4.27	3.50	3.08	2.56	2.20	1.92	1.54
1800	4.94	4.52	3.61	3.01	2.46	2.17	1.81	1.55	1.35	1.08
2000	4.00	3.30	2.64	2.20	1.80	1.58	1.32	1.13	0.99	0.79
2200	3.31	2.48	1.99	1.66	1.35	1.19	0.99	0.85	0.74	0.60
2400	2.78	1.92	1.53	1.28	1.04	0.92	0.77	0.66	0.57	0.46
2600	2.37	1.51	1.21	1.01	0.82	0.72	0.60	0.52	0.45	0.36
2800	2.04	1.21	0.97	0.81	0.66	0.58	0.48	0.41	0.36	0.29
3000	1.78	0.98	0.79	0.66	0.54	0.47	0.39	0.34	0.29	0.24
3200	1.56	0.81	0.65	0.54	0.44	0.39	0.32	0.28	0.24	0.19

Installation



CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

SureLine® MD

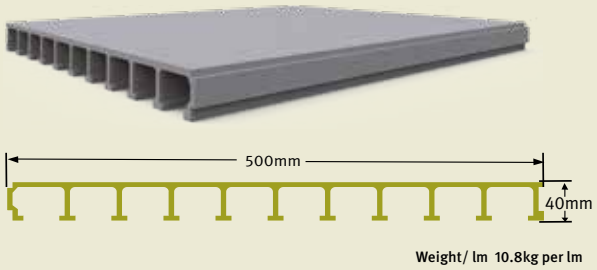
SureLine® MD is an immensely versatile profile which combines lightweight and inherent strength to provide a durable product typically provided with an anti-slip surface and in customisable range of colours to suit the specifics of your application. SureLine® MD is designed to withstand loads to enable operators to safely reach covered areas as well as a non-trafficable odour control cover system.

MD or Medium Duty constructions make this cover a flexible intermediate alternative to meet the intermediate loading requirements.

SureLine® MD outperforms with an impressive strength to weight ratio to produce a composite cover that is strong, durable, corrosion resistant and boasts extremely low maintenance.

Part: SureLine® Medium Duty Panel

Part Number: ARX-SL040



Weight/ lm 10.8kg per lm

A_w	2200 mm^2	W_t.	10.8 kg/m
I	1021011 mm^4	S	39930 mm^3

Span (mm)	Maximum Load (kPa)	Deflection (kPa)									
		L/D=100	L/D=120	L/D=150	L/D=180	L/D=220	L/D=250	L/D=300	L/D=350	L/D=400	L/D=500
400	226.60					196.78	173.17	144.31	123.69	108.23	86.59
600	122.33	140.68	117.23	93.78	78.15	63.94	56.27	46.89	40.19	35.17	28.14
800	68.81	61.43	51.19	40.95	34.13	27.92	24.57	20.48	17.55	15.36	12.29
1000	44.04	31.97	26.64	21.31	17.76	14.53	12.79	10.66	9.13	7.99	6.39
1200	30.58	18.67	15.56	12.45	10.37	8.49	7.47	6.22	5.33	4.67	3.73
1400	22.47	11.82	9.85	7.88	6.57	5.37	4.73	3.94	3.38	2.96	2.36
1600	17.20	7.95	6.62	5.30	4.41	3.61	3.18	2.65	2.27	1.99	1.59
1800	13.59	5.59	4.66	3.73	3.11	2.54	2.24	1.86	1.60	1.40	1.12
2000	11.01	4.09	3.40	2.72	2.27	1.86	1.63	1.36	1.17	1.02	0.82
2200	9.10	3.07	2.56	2.05	1.71	1.40	1.23	1.02	0.88	0.77	0.61
2400	7.65	2.37	1.97	1.58	1.32	1.08	0.95	0.79	0.68	0.59	0.47
2600	6.51	1.87	1.55	1.24	1.04	0.85	0.75	0.62	0.53	0.47	0.37
2800	5.62	1.49	1.25	1.00	0.83	0.68	0.60	0.50	0.43	0.37	0.30
3000	4.89	1.22	1.01	0.81	0.68	0.55	0.49	0.41	0.35	0.30	0.24
3200	4.30	1.00	0.84	0.67	0.56	0.46	0.40	0.33	0.29	0.25	0.20

Installation

SureLine® HD

The SureLine® odour control tank cover system is comprised of an FRP interlocking panel system that can be designed, engineered and fabricated to suit the specifics of your application. SureLine® HD can be designed as a load-bearing platform solution enabling operators to safely reach covered areas. The Sureline® HD system can also be designed as a non-trafficable odour control cover system, meeting AS1170 requirements.

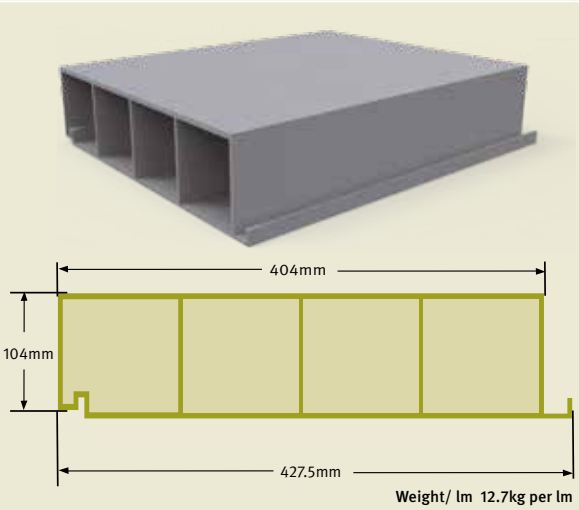
HD or Heavy Duty constructions means that the cover can accommodate various loading requirements and meet a broad range of local and environmental requirements. Handrails can be accommodated if required and mounted directly off the cover.

SureLine® HD odour control cover systems also offer a range of inspection hatches, maintenance hatches and full access hatches with safety grates or grilles installed.

SureLine® HD are sealed systems designed to contain odours and/or operate in conjunction with scrubber systems that draw the trapped gases off and treat them to eliminate odour.

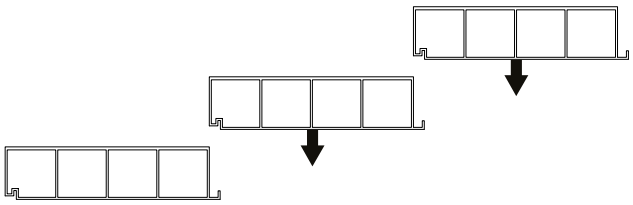
Part: SureLine® Heavy Duty Panel

Part Number: ARX-SL100

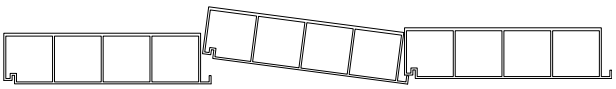


A_w	2080 mm²	W_t.	12.7 kg/m
I	11096613 mm⁴	S	192449 mm³

Installation



Unique Panel Removal Feature



This allows access to a central panel without having to remove all panels.

Please consult our EcoEX™ Odour Control Product Guide for more information.

Queensland - Cedar Grove Wastewater Treatment Plant

What is EcoEX™ SureLine® FRP Baffle Walls?

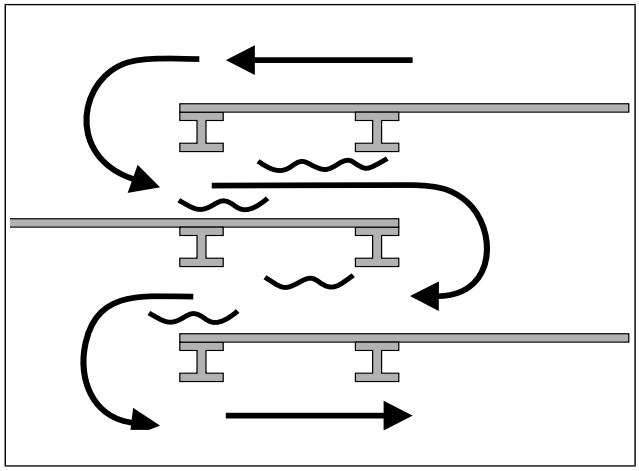
In-line with our offerings for odour control, Treadwell offers a premium solution to control flow in related applications with our multifunctional SureLine® range.

SureLine® fibreglass baffle walls are an effective solution to meet requirements in potable water and wastewater treatment flow control. SureLine® FRP baffle and partition walls compose of high grade fibreglass panels, angles and framing sections, engineered to your specifications. All SureLine® fibreglass baffle walls are certified AS 4020 for processing potable water.

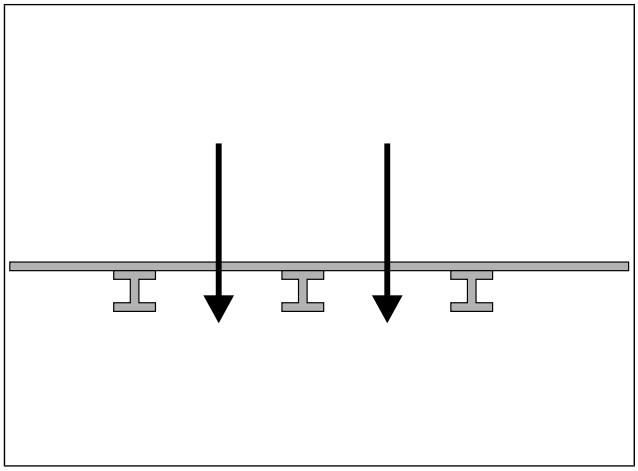
Ideal for New or Retrofit Basins

SureLine® FRP baffle walls are a proven solution for both new and existing basins. These panels can withstand corrosion, unlike traditional materials, and are more cost effective. Being lightweight means quick and easy installation. Maintenance is also lessened as they can be taken down easily for cleaning and other purposes.

Design Versatility and Flexibility



Baffles to control flow and increase residence time.



Partition to separate zones or enhance mixing.

Benefits of SureLine® Baffle Walls

1	Easy to install	3	Easy to remove scum
2	Relatively maintenance free	4	Light weight

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Case Study – NSW Sewage Treatment Plant

PROJECT INFORMATION	
Project Category:	Water Treatment Plant
Scope of Work:	Design and supply of baffle walls
Treadwell Products:	EcoEX™ FRP Baffle Walls ArchitEX™ FRP Structural Profiles

Our client in New South Wales prides themselves on managing the environment and the health of their waterways towards high quality living in the state. They supply water, wastewater, recycled water and stormwater services to over 5 million people in Greater Sydney and the Illawarra.

One of their existing treatment plants required the baffle walls to be upgraded to help manage the flow of wastewater.

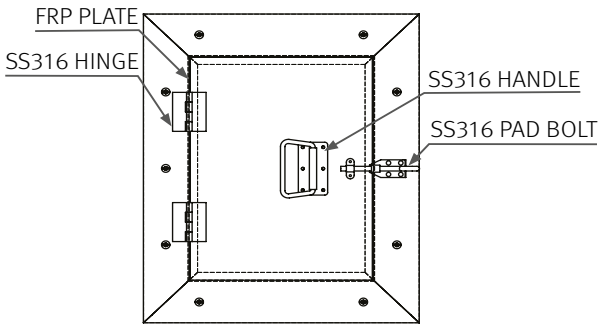
Treadwell was engaged to engineer, design and supply the FRP baffle wall solution for this sewage treatment plant.

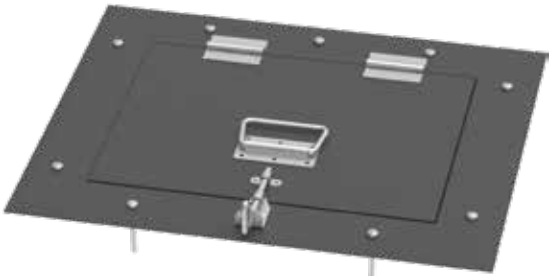
Treadwell's Solution:

1. Treadwell's EcoEX™ FRP baffle walls are constructed from premium European resin systems, providing superior service life over traditional materials.
2. EcoEX™ FRP baffle walls are paired with Treadwell's ArchitEX™ structural beams to provide a complete FRP solution.
3. Treadwell's FRP baffle walls are interlocking deck boards that eliminate gaps between boards, allowing for a secure seal.
4. EcoEX™ FRP baffle walls are built to withstand repeated cyclic loading conditions and fluid dynamic pressures.
5. These panels and beams are corrosion resistant and are cost effective, providing lower lifetime costs.
6. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

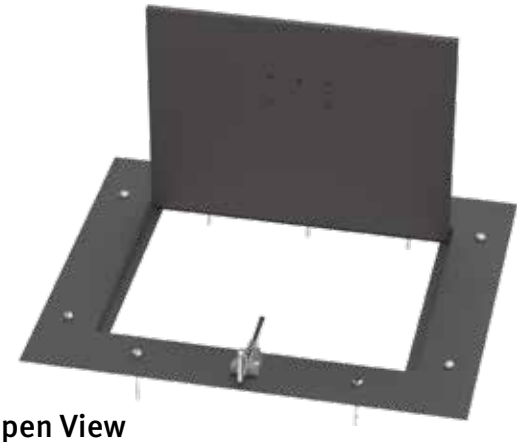
EcoEX™ Odour Control Covers can also be customised to include load bearing access hatches. With a diverse range of hinges and handles, these can also be installed with an underlying grating cover for added safety, or as the application requires.

SureLine® Standard FRP Hatch



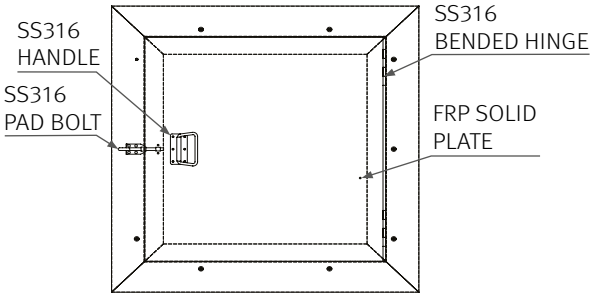


Closed View



Open View

SureLine® FRP Hatch & Safety Grate

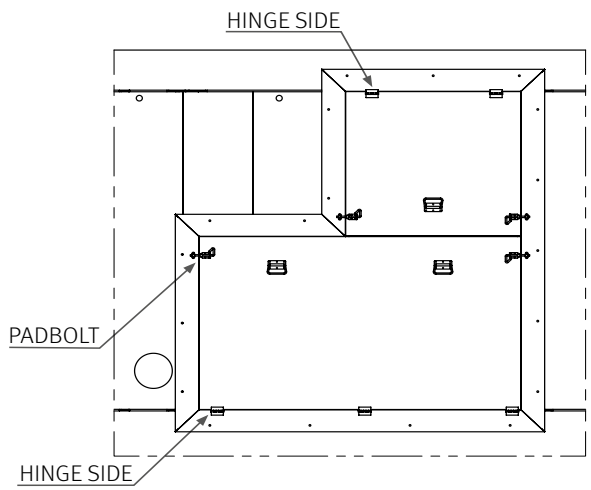


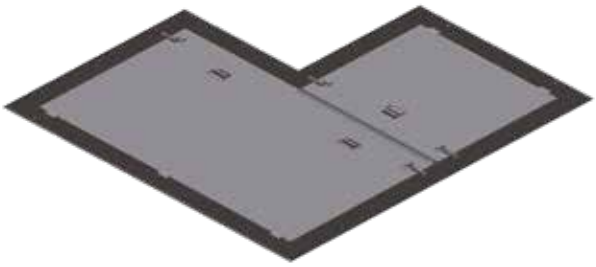
Closed View

Open View

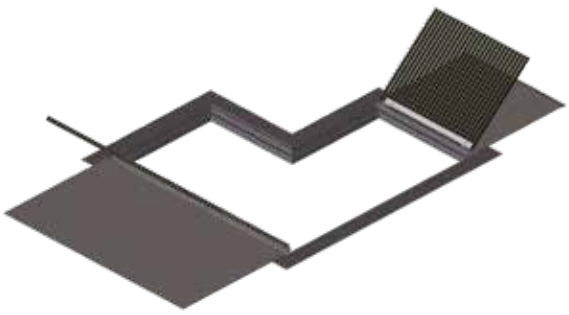
CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

SureLine® FRP Manual Screen Hatch



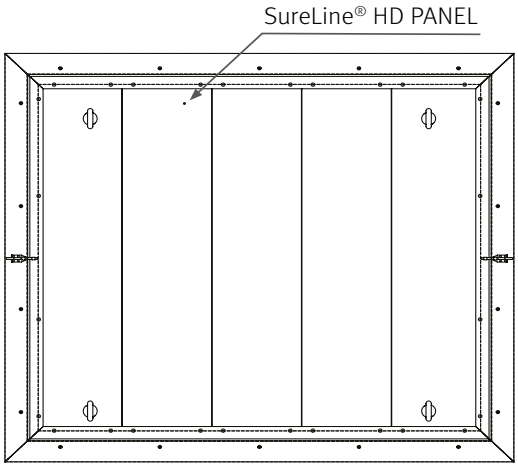


Closed View

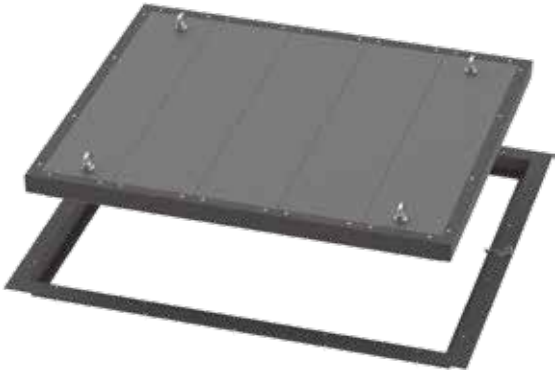


Open View

SureLine® FRP Removable Pump Cover



Closed View



Open View

Case Study – Wanganui Sewage Treatment Plant

PROJECT INFORMATION	
Project Category:	Water Infrastructure
Scope of Work:	Design & supply odour control cover system
Treadwell Products:	EcoEX™ SureLine® Heavy Duty panels

The Wanganui wastewater treatment plant in New Zealand needed to be upgraded with a solution that was robust and could capture the odour produced from the plant. As a part of this upgrade, Treadwell worked closely with the mechanical contractor, builder and council to deliver an odour control cover solution using Treadwell's EcoEX™ SureLine® HD system. In addition to containing corrosive gases, this project was designed to bear loads allowing safe access across the covers.

Treadwell's Solution:

1. Treadwell's high performance EcoEX™ SureLine® HD panels are manufactured from premium grade, corrosion-resistant fibreglass resins.
2. The panels for this project were designed and customised to meet live load requirements.
3. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
4. Being lightweight and easy to install, FRP is very manageable during construction.
5. Given the nature of FRP, any system utilising it is virtually maintenance free, thus keeping maintenance costs as low as possible.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Case Study – Cedar Grove Wastewater Treatment Plant

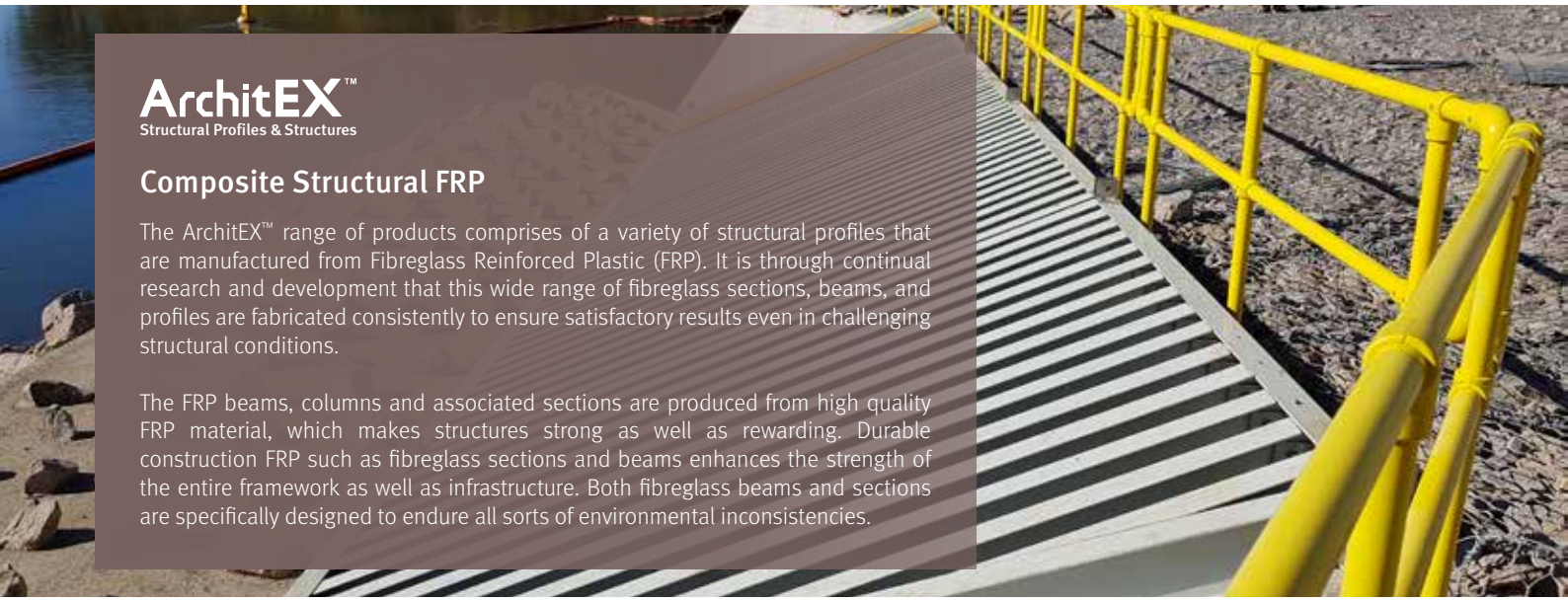
PROJECT INFORMATION	
Project Category:	Wastewater Treatment Plant
Scope of Work:	Supply EcoEX™ FRP Odour Control Tank Covers
Treadwell Products:	EcoEX™ SureLine® Heavy Duty Panels and Hatches

This wastewater treatment plant is Queensland's first environmentally sustainable facility. Designed to treat wastewater to the highest standards, this plant will provide five times the benefits when compared to any other typical wastewater treatment plant in Australia. This plant will produce ultra-low nutrient effluent using a biological treatment process and constructed wetlands to 'polish' the effluent. Additionally, there is a program to replant and rehabilitate sections of the river banks upstream of the plant to prevent tonnes of nutrient-laden sediment from entering the waterway.

Treadwell was engaged to supply the EcoEX™ FRP odour control panels for the water treatment tanks.

Treadwell's Solution:

1. EcoEX™ SureLine® HD covers are manufactured from premium quality resins with reinforced membranes that contain odours.
2. SureLine® HD odour control panels can incorporate a range of inspection hatches, full hatches with safety grates, as well as maintenance hatches.
3. These SureLine® HD panels are sturdy enough to have handrails installed to provide enhanced safety for the user.
4. FRP is simply fabricated and modified on site. This means that any variance on task is easily accommodated.
5. Being lightweight and easy to install, FRP is very manageable during construction.
6. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.



ArchitEX™
Structural Profiles & Structures

Composite Structural FRP

The ArchitEX™ range of products comprises of a variety of structural profiles that are manufactured from Fibreglass Reinforced Plastic (FRP). It is through continual research and development that this wide range of fibreglass sections, beams, and profiles are fabricated consistently to ensure satisfactory results even in challenging structural conditions.

The FRP beams, columns and associated sections are produced from high quality FRP material, which makes structures strong as well as rewarding. Durable construction FRP such as fibreglass sections and beams enhances the strength of the entire framework as well as infrastructure. Both fibreglass beams and sections are specifically designed to endure all sorts of environmental inconsistencies.

Scope of Shapes

Easy integration to various parts due to the capability to essentially shape any item with a constant cross section which can be pultruded.

Composite Design Engineering

A standard shape customised into a pultrusion by modifying the resin or reinforcement to achieve a particular customer need.

Optimising Resins

Standard resins can be modified or special resins can be used to maximise performance of the pultrusion in challenging environments, such as those found in high temperature or extremely corrosive areas. Typical resins include polyesters, vinylesters, PVC, epoxies, phenolics, urethanes and blends.

Choice of Reinforcements

The type, form, placement and quantity of reinforcements can be customised to optimise economy, develop ascribed strength and create or enhance other physical characteristics of a pultruded part. Typical reinforcements used include glass or carbon fibres in multifilament strands, mat (long fibres held together with a resinous binder) or stitched fabrics.

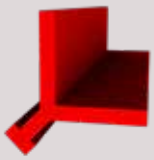
Core Materials Options

Treadwell provides a range of core material options with comprehensive experience in pultruding over various materials including foam, balsa, polyethylene and aluminium.

Structural Design & Analysis

Our experienced team of engineers and designers can help conceptualise your design and maximise all FRP structural components to offer the most cost effective and simplest solution.

ArchitEX™ FRP Profiles

ArchitEX™ Range		
C Channel	I-Beam	WF-Beam
		
Double Web Beam	Unequal Leg Angle	Equal Leg Angle
		
Square Hollow Section	Rectangular Hollow Section	Circular Hollow Section
		
Circular Round Bar	Solid Bars	Embedment Angle
		

Please consult our ArchitEX™ Product Guide for more information.

Case Study – Water Tank Roof Support

PROJECT INFORMATION	
Project Category:	Water Tank Infrastructure
Scope of Work:	Supply FRP Roof Structural Beams
Treadwell Products:	ArchitEX™ FRP Double Web Beams

Victor Harbour, South Australia – This water tank had to be upgraded as part of maintenance efforts. Treadwell's specially designed double web beams were specified for this upgrade.

Treadwell's Solution:

1. ArchitEX™ FRP Double Web Beams were specified for this application for its high weight loading capacity.
2. Being an 'I' type design, fasteners are sheltered within the edges of the profile. This minimises the risk of maintenance divers' gear getting tangled up in protruding fasteners.
3. Treadwell's FRP products are constructed from premium quality resins with corrosion-resistant properties.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Melbourne, Victoria - Craigieburn Sewage Transfer Hub

What is EX-Series® Industrial Composite Solutions?

A designed composite structural and access solution featuring a combination of our FRP products.

These access structures are easily installed in elevated, remote, indoor or outdoor locations, and possess corrosion resistant and low electrical conductivity properties.

Fixed Staircases

An FRP solution featuring a combination of ArchitEX™ structural profiles, EX-Series® grating and stair treads, and RailEX® handrails. Built to withstand corrosive indoor and outdoor environments.

Fixed Access Platforms

These can be customised to the span required for its purpose. Being naturally non-conductive and long-lasting solution for chemically sensitive environments.

Structural Stair Systems

Stair systems can be trial assembled in the Treadwell factory, before being partly dismantled and packed into modules. This allows for minimal downtime for the site, and quick installation.

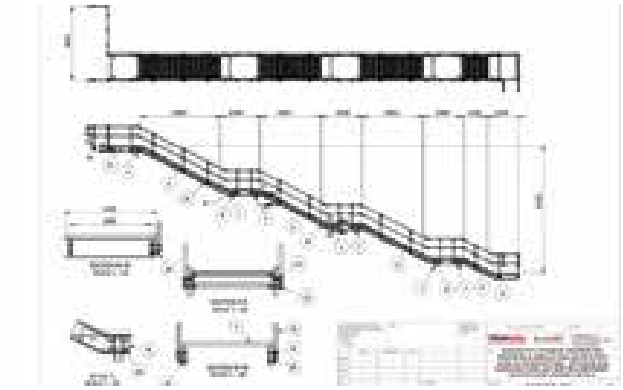
Customised Structures

FRP is lightweight with a high strength to weight ratio, compared to traditional materials. treadwell's design and engineering team is able to design structures fit for purpose.

Case Study – Reservoir Access Staircase

PROJECT INFORMATION	
Project Category:	Water storage facility
Scope of Work:	Supply EX-Series® FRP Solution
Treadwell Products:	EX-Series® GratEX® FRP Square Mesh Grating EX-Series® RailEX® ROUND FRP Handrails ArchitEX™ FRP Structural Profiles

In 2015, Treadwell was contracted to carry out supply for works for the replacement of the entire roof over the water supply to ensure that it is completely water proof to prevent contamination of the potable water supply. The works also included the installation of access stairs into the reservoir to improve safe access. This was particularly important for when a polyethylene liner is installed in the future.



Treadwell's Solution:

1. Extremely durable EX-Series® range (EX-Series® GratEX® Square Mesh Grating and RailEX® ROUND Handrail) engineered and manufactured to comply to AS1657-2013.
2. The comprehensive range of ArchitEX™ FRP Structural Profiles allows for efficient design providing a lightweight structure making installation straightforward.
3. FRP is simply fabricated and modified on site this means there is no need for any hot works permit.
4. Being lightweight and easy to install, FRP is very manageable during construction.
5. Given the nature of FRP, any system utilising it is virtually maintenance free, thus keeping maintenance costs as low as possible.

Case Study – Maribyrnong River Bridge Pipe Support

PROJECT INFORMATION	
Project Category:	Pipe support beams
Scope of Work:	Design, engineer and supply FRP products
Treadwell Products:	ArchitEX™ FRP Structural Profiles and flat plates

A Melbourne water main needed to be added to the truss structure of a bridge over the Maribyrnong river. To facilitate this, FRP support beams were installed onto the existing truss structure to hold a heavy steel pipe.

Treadwell's Solution:

1. Highly durable ArchitEX™ FRP structural profiles were customised to the required length.
2. Quick turnaround was needed, and stock was readily available.
3. The beams were designed and engineered to support the heavy steel pipe.
4. The support beams needed to be positioned into place without a crane or heavy machinery. Being lightweight, FRP allows for positioning by hand.
5. Fully engineered and certified by Treadwell to provide peace of mind.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Case Study – Cardinia Fluoride Dosing Plant

PROJECT INFORMATION	
Project Category:	Water Treatment Plant
Scope of Work:	Allow elevated decking to accommodate safe access to equipment.
Treadwell Products:	EX-Series® GratEX® FRP Square Mesh Grating EX-Series® Colossus EX-Series® RailEX® ROUND FRP Handrail ArchitEX™ FRP Structural Profiles

A major producer of potable water, this crucial water treatment plant in Victoria disinfects water by using chlorine to kill potentially harmful micro-organisms and maintain public health. The water is also fluoridated and corrected for pH.

To ensure longevity of their internal structure, Treadwell was tasked with providing a solution that would allow for easy access to instruments as well as provide for levelled flooring. Downtime had to be kept to a minimum. The structure be robust, durable and able to withstand constant exposure to minerals and chemicals.

Treadwell's Solution:

1. Corrosion resistant EX-Series® GratEX® FRP grating panels are manufactured from premium grade resin systems and were specified over traditional materials to be the decking of choice.
2. EX-Series® Colossus offers flexibility in height and is able to carry heavy loads. Ideal to support the GratEX® grating panels.
3. ArchitEX™ FRP Structural Profiles and RailEX® ROUND FRP handrails, including staircases, were the solution of choice.
4. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
5. Being lightweight and easy to install, FRP is very manageable during construction.
6. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

Case Study – Sewage Transfer Hub

PROJECT INFORMATION	
Project Category:	Sewage Treatment Plant
Scope of Work:	Supply EcoEX™ FRP Odour Control Tank Covers
Treadwell Products:	ArchitEX™ FRP Structural Profiles EcoEX™ SureLine® HD (Heavy Duty) Panels and Hatches Associated fasteners and support brackets

This sewage plant located in Victoria, required additional infrastructure to accommodate the growing population in Melbourne's northern suburbs. This would include new above-ground tanks and a new sewage pump station, which would improve their capacity to collect, store and transfer sewage flows. An innovative planning and design process was undertaken that would allow this plant to grow as needed to match development, and resulted in a saving of over $100 million through this alternative solution.

Treadwell was engaged to supply the FRP odour control solution as part of this project.

Treadwell's Solution:

1. EcoEX™ SureLine® HD covers are manufactured from premium quality resins with reinforced membranes that contain odours.
2. EcoEX™ FRP Odour Control Covers are constructed in a way that allows easy removal of panels whenever access is required.
3. The panels for this project were designed to be anti-slip and customised to meet load requirements.
4. ArchitEX™ FRP Structural Profiles and EcoEX™ panels are made from specially formulated resins to withstand corrosion.
5. Lightweight and boasting minimal maintenance requirements, EcoEX™ made for an easy decision.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

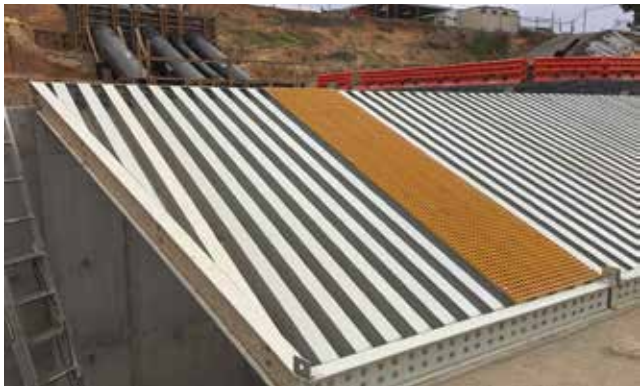
Case Study – Wagga Wagga Water Treatment Plant

PROJECT INFORMATION	
Project Category:	Water Infrastructure
Scope of Work:	Supply of FRP products
Treadwell Products:	ArchitEX™ FRP Structural Profiles EX-Series® RailEX® ROUND FRP Handrails EX-Series® GratEX® FRP Square Mesh Grating

Originally formed in the 1930s, this water treatment plant was incorporated to make reticulated water available to towns and villages in the area.

Over the years, more localities were added. Water supply was established with the Murrumbidgee River with a network of treatment, pumping, storage and pipework installations.

To support expansion plans, a new plant was built. As part of the new plant, a trash screen needed to be installed to prevent debris from the river going into the pipes. Decking was also installed in the chemical bund for potential leaks.



Treadwell's Solution:

1. Treadwell's FRP products are constructed from premium resins that that include corrosion resistant properties and UV inhibitors.
2. Treadwell's ArchitEX™ FRP Structural Profiles can be customised to suit the application.
3. EX-Series® RailEX® ROUND FRP handrails are the choice alternative to metallic handrails and offers electrical transparency while being non-conductive in nature.
4. EX-Series® GratEX® FRP Square Mesh grating allows for maximum flow through of excess chemicals.

What is EX-Series® RailEX® ROUND FRP Handrail?

Treadwell's RailEX® ROUND Tubular Handrail is an industrial rated composite handrail system which combines strength, durability and versatility meaning the system is ideal for use in numerous applications in a vast range of industries. Treadwell can supply RailEX® as either components or as fabricated handrail panels ready for installation.

Smart Transposable Designs

Unlike traditionally welded alternatives, Treadwell FRP handrail system disposes the need for drafting, engineering and onsite fabrication while minimising installation costs. Treadwell's safety handrail systems can be adapted or extended with additional components, or cut to size onsite. Pre-engineered kits are supplied as a series of components with simple assembly instructions. With our clients in mind, Treadwell aims to minimise the cost of maintenance and repairs, and damaged components easily with readily available parts and stock.

Simple Zero Weld Assembly

As an added benefit, fibreglass handrail kits are assembled using a simple, zero weld construction method; reducing the chances for corrosion activation. Treadwell's RailEX® designs and fittings effectively eliminate the need for specialist trades, hot works permits, fire spotters and welding protection to finished surfaces. Our selection of FRP increases safety conditions for installers by eliminating toxic fumes, welding in wet areas and fire risk hazards.

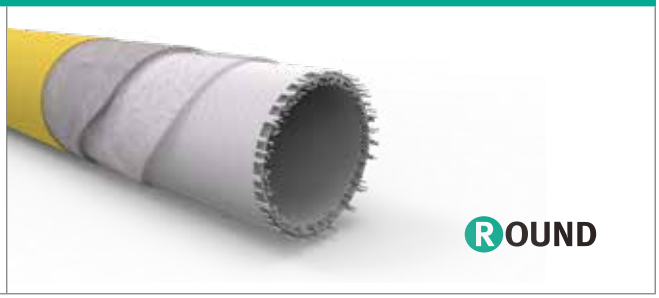
Developed by Treadwell with the input of designers, and plan operators, this system offers you all benefits of traditional guardrail systems without the inherent problems - corrosion, welding and hot works permits for onsite modifications. This unique system is a first to be tested and conform with Australian Standards AS 1657. RailEX® is the 'Fit & Forget' handrail system.

NATA APPROVED

AS 1657 This product conforms to AS1657

Materials of Construction

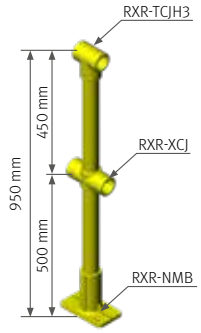
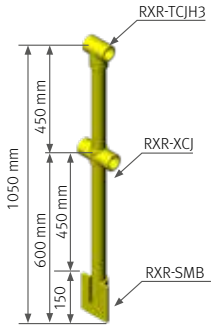
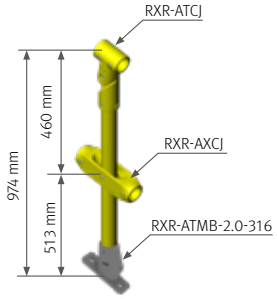
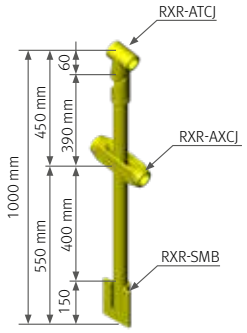
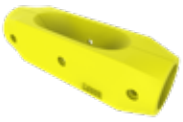
RailEX® FRP handrail is constructed from fibreglass rovings combined with a blend of thermosetting resin systems. All of the resins used in the production of EX-Series® products contain UV inhibitors and fire retardant additives.

SQUARE RAIL	ROUND RAIL
	

Please consult our RailEX® Product Guide for more information.

RailEX® ROUND Stanchion Kits & Handrail Parts

Treadwell has created options of RailEX® handrail stanchion kits. This ensures that all the required parts are included, making for easy planning and installation. Please note that the list below is just a selection of our most popular handrail assemblies. For a more comprehensive selection, please consult our RailEX® Product Guide .

RXR-SN-VY-K	RXR-SS-VY-K	RXR-AA-VY-K	RXR-AS-VY-K
RailEX® ROUND Stanchion Sales Kit, Standard Stanchion with Narrow Mounting Bracket, V-Series® Safety Yellow, including Stainless Steel Fasteners.	RailEX® ROUND Stanchion Sales Kit, Standard Stanchion with Side Mounting Bracket, V-Series® Safety Yellow, including Stainless Steel Fasteners.	RailEX® ROUND Stanchion Sales Kit, Adjustable Stanchion with Angled Round Top Mount Bracket, V-Series® Safety Yellow, including Stainless Steel Fasteners.	RailEX® ROUND Stanchion Sales Kit, Adjustable Stanchion with Side Mounting Bracket, V-Series® Safety Yellow, including Stainless Steel Fasteners.
 NOTE: Assembly excludes fasteners to connect to structure.	 NOTE: Assembly excludes fasteners to connect to structure.	 NOTE: Assembly excludes fasteners to connect to structure.	 NOTE: Assembly excludes fasteners to connect to structure.
 RXR-CCJ Standard ROUND Fibreglass 90° Corner Connection Joint	 RXR-XCJ Standard ROUND Fibreglass Cross Connection Joint	 RXR-TCJH2 Standard ROUND Vertical Fibreglass Connection Joint	
 RXR-TCJH3 Standard ROUND Horizontal Fibreglass Tee Connection Joint (three holes)	 RXR-TRJ Standard ROUND Fibreglass Top Rail Joiner	 RXR-ACCJ Adjustable ROUND Fibreglass Corner Joint	
 RXR-AXCJ Adjustable ROUND Fibreglass Cross Connection Joint	 RXR-ATCJ Adjustable ROUND Fibreglass Tee Connection Joint	 Standard Stainless Steel Driver Kit M6 Type with Trilobular Head	
 RXR-SMB Standard ROUND Fibreglass Side Mounting Bracket	 RXR-NMB Standard ROUND Fibreglass Narrow Mounting Bracket	 Standard Stainless Steel Fastener Kit M6 with Trilobular Head (stock item)	 Standard Stainless Steel Fastener Kit M10 (stock item)

Case Study – Nelson Wastewater Treatment Plant

PROJECT INFORMATION	
Project Category:	Wastewater Treatment Plant
Scope of Work:	Supply FRP handrails
Treadwell Products:	EX-Series® RailEX® ROUND FRP handrails

Our client operates and maintains this wastewater treatment plant in the Nelson region of New Zealand. Experts in their field, our client manages the routine maintenance of all plant and equipment and are responsible for all operations. They also manage vegetation and pest control, and general exterior building maintenance.

The existing handrails had corroded. The new handrails needed to be able to withstand the outdoor conditions as well as the general environment typical of a wastewater treatment plant. The new handrail parts had to be readily available in the event repairs or replacements needed to be made.

Treadwell was engaged to provide these new handrails.

Treadwell's Solution:

1. Treadwell's EX-Series® RailEX® ROUND FRP Handrails are constructed with UV inhibitors. This allows it to be used outdoors, without compromising on structural integrity.
2. EX-Series® RailEX® ROUND FRP Handrails have a protective coat which protects fibres from damaging hands, and delamination.
3. FRP is non-conductive in nature, this makes it resistant to stray electrical currents.
4. Treadwell's large stockholdings allow for quick supply of parts for any part replacement, if required.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Melbourne, Victoria - Melton Recycled Water Plant

What is EX-Series® LadderEX® FRP Ladders?

LadderEX® is the superior alternative to metallic ladders and cage systems, providing excellent corrosion resistance and electrical transparency. Even in complete immersion applications, Treadwell's fibreglass ladders have outlasted aluminium and steel, and required little or no maintenance.

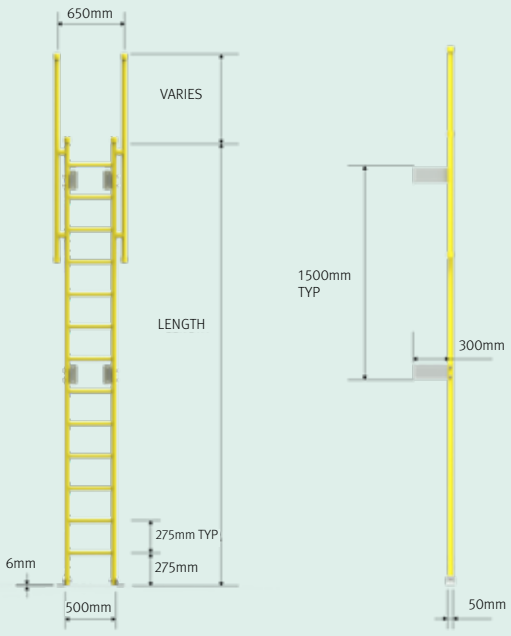
Our products in this range are made from superior fibreglass which offers unparalleled advantages, leaving behind alternatives that are metal or steel based. Our ladders and ladder cage systems are produced using a premium grade polyester resin system with flame retardant and ultraviolet (UV) inhibitor additives. A vinylester resin system is available upon request for additional corrosion resistance. Standard side rails and cages are in safety yellow. The rungs are a pultruded fibreglass polyester tube with a fluted, non-skid surface.

LadderEX® fibreglass ladder systems are fabricated and designed with FRP according to AS 1657-2018. The pultruded parts are produced with a fire retardant polyester resin which meets the ASTM E-84 test for flame spread of 25 or less and contains a UV inhibitor. The colour is in standard OSHA safety yellow though colour matching can be provided.

Ladders are shop assembled and may be pre-drilled and prepared for field attachment with standoff clips and/ or base brackets systems.

The LadderEX® product range can easily be integrated into any existing platform or structure. It can come in a variety of configurations to suit any purpose as well.

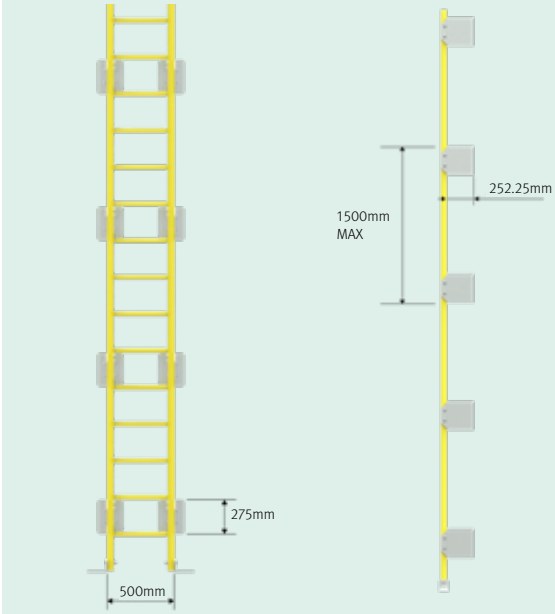
LadderEX® Standard Ladder with ROUND Grab Stiles — LDX-RG



Brief:
In instances where there is a requirement for extra security above 1.5m, Treadwell can supply standard access ladders without returns with a round grab stile.

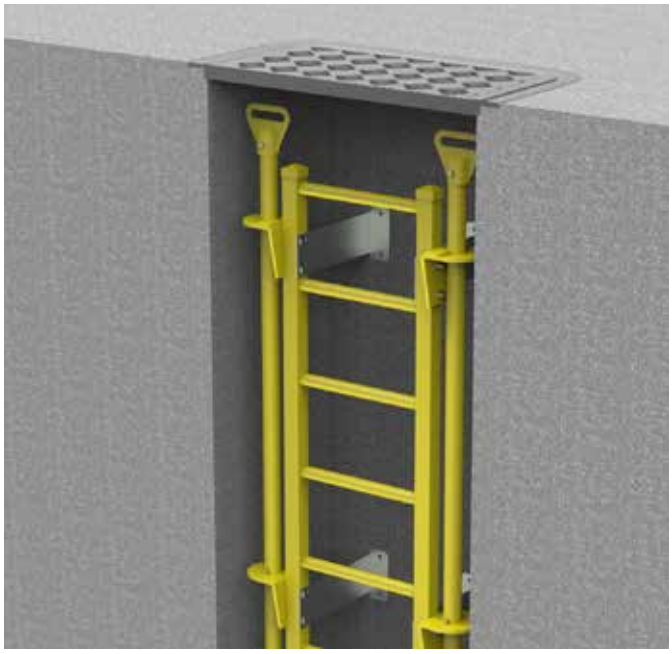
Please consult our LadderEX® Product Guide for more information.

LadderEX® Heavy Duty Wall Mounted SQUARE Ladder — LDX-SL



Brief:
For industrial and other heavy duty purposes, Treadwell supplies a more durable and robust heavy duty wall mount and floor mounts (if required) for that added safety factor.

RETRACT-A-STILES



What are LadderEX® Retract-A-Stiles?

LadderEX® Retract-A-Stiles offer convenience, flexibility, and enhanced safety, especially in confined spaces. Constructed from corrosion-resistant FRP, they require minimal maintenance. Easy to install, they ensure safety at heights with ergonomically designed handles for superior grip and robust fixing brackets for strength and versatility.

LadderEX® components are modular, allowing numerous ladder and access configurations to meet specific site requirements. We can easily integrate your needs into any Retract-A-Stile design.

To comply with AS 1657 standards, ladders must be at least 1700mm long, with stiles extending at least 1000mm above the top landing. The gap between ground level and the first rung should be no less than 90% of the spacing between other rungs.

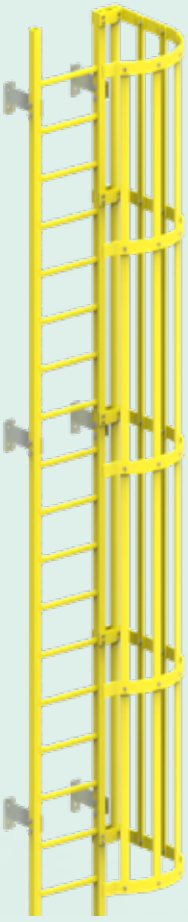
While Treadwell strives to ensure compliance with AS 1657, bespoke solutions may sometimes result in non-compliant products. In these cases, client approval to proceed is considered consent to supply non-compliant goods or services.

What are LadderEX® Safety Cages?

The side rails, rungs and cage straps are manufactured from pultruded fibreglass reinforced components which can be found in Treadwell's RailEX® componentry. The side rails are either 50mm round or square tube with a wall thickness of 4mm or greater. The rungs shall be pultruded 32mm across the FRP fluted tube.

Cage hoops are constructed by the open mould hand lay-up process with a width of 76mm and thickness of 6mm minimum at the top and bottom and 50mm x 6mm at the intermediate hoops. The cage shall be interconnected with 50mm x 4.8mm pultruded straps spaced 230mm on centre around the hoop.

LadderEX® Safety Cage Options Overview

WALKTHROUGH LDX-SC	LEFT ACCESS LDX-LC	RIGHT ACCESS LDX-RC
		

Case Study – Safety Ladders for Milk Plant

PROJECT INFORMATION	
Project Category:	Safe access for staff
Scope of Work:	Supply of LadderEX® ladders and safety cages.
Treadwell Products:	EX-Series® LadderEX® FRP Ladders & Ladder Cages

Our client undertook a complete mechanical plant design for a milk plant in New South Wales. This included three large tanks with top access safety platforms; this was to allow for easy installation and removal of large aerator mixers. Their design included ladders and ladder cages to provide safety to personnel using the roof mounted manhole access. These ladders also needed to be lockable to prevent non-permitted access.

Treadwell was engaged to provide the FRP ladders and ladder cages.

Treadwell's Solution:

1. EX-Series® LadderEX® is the choice alternative to metallic ladders and cage systems, providing superior corrosion resistance and electrical transparency.
2. EX-Series® LadderEX® ladders and cages are produced using a premium grade resin system with flame retardant and ultraviolet inhibitor additives.
3. For added safety, the ladder rungs are designed to be non-skid.
4. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
5. Being lightweight and easy to install, FRP is very manageable during construction.
6. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

What is EX-Series® FRP Grating?

Treadwell's GratEX® moulded FRP grating is a high strength, single piece construction mesh panel product. Treadwell offers both standard panel sizes as well as the option of custom panels made to order from your drawings, or alternatively, drawings provided by Treadwell's drafting department.

Cost effective GratEX® panels allow for effective on-site fabrication/trimming whilst ensuring that wastage is minimised. Load bearing bars in both directions allow for use without continuous side support and so contribute to cost effectiveness. GratEX® offers all the benefits available with grating made from other materials plus a host of superior benefits unequalled by steel or other metal alternatives.

GratEX® Surface Options

Anti-Slip Surface (Standard). This surface is most commonly used in industrial applications. It is very hard wearing and boasts an extremely effective coefficient of friction (NATA laboratory test report available). Unlike serrated steel, the anti-slip surface does not impact load carrying capacity.

Concave Surface. This is preferred for environments where by-products are commonly caught by serrations, and is hence very often utilised by the food industry. This surface option can also be used for guarding options to allow safe handling/ contact.

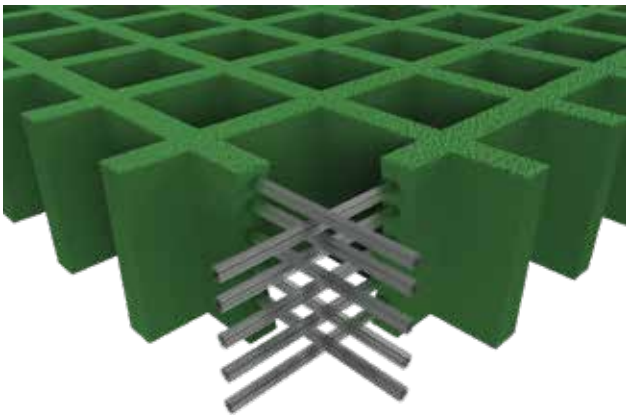
Plain Surface. This is a stock option that is widely utilised for guarding and architectural features in a variety of applications. Whilst the aesthetics of the product are improved, the anti-slip properties are not as profound as the other options available.

Treadwell EX-Series® FRP Grating

Treadwell EX-Series® Fibreglass Reinforced Plastics (FRP) grating products are recommended for areas where physical properties are paramount to design and longevity. Treadwell offers an extensive range of FRP grating products, two of which are highly utilised in the rail industry. There are key differences to take note of. The information below outlines the key differences and the ideal scenarios in which the different types of grating are to be utilised.

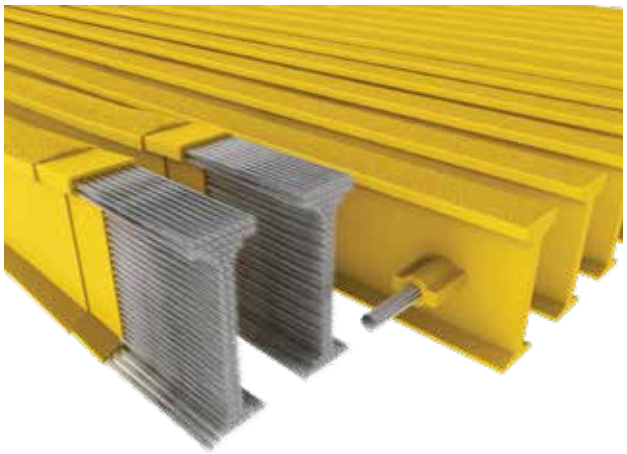
GratEX® Moulded FRP Grating

The perfect solution for areas where excessive amounts of penetrations (i.e. for piping) call for traditional uni-directional spanning products. This greatly increases the costs when using traditional materials, like steel. FRP grating maintains strength and integrity even with multiple penetration cut outs, while keeping costs low.



GridEX® Pultruded FRP Grating

The ultimate choice for areas where extremely high loadings, or larger spans present a challenge. Such applications include wide walkways, or where equipment needs to be installed on top of grating.



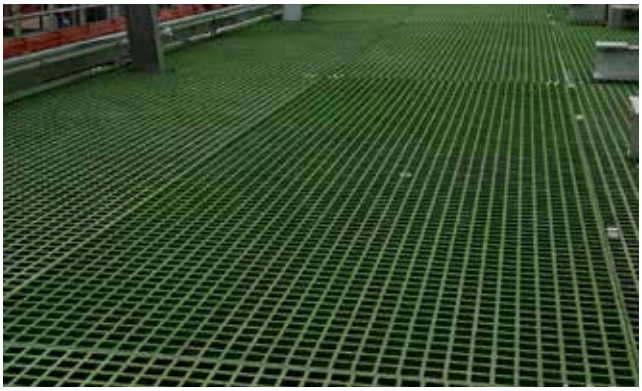
Please consult our EX-Series® Grating Product Guide for more information.

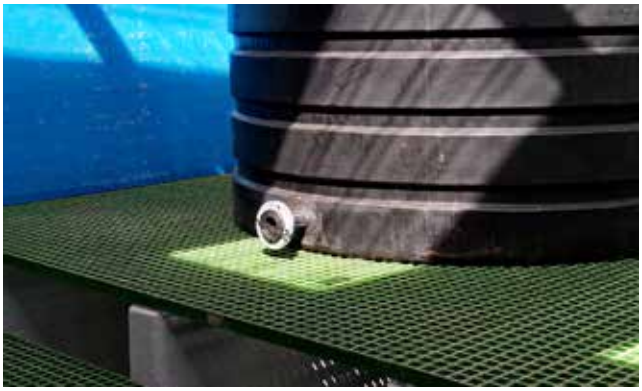
Case Study – Sale Water Treatment Plant

PROJECT INFORMATION	
Project Category:	Water Treatment Plant
Scope of Work:	Supply FRP grating and stair treads
Treadwell Products:	EX-Series® GratEX® FRP Square Mesh Grating and stair treads

This water treatment plant supplies fresh, clean drinking water to over 70,000 customers and waste water services to more than 63,000 customers in Victoria. A major water supplier, they manage an infrastructure network consisting of 15 water treatment plants, as well as an extensive network of water and sewer mains and wastewater treatment plants. As part of upgrading works to more efficiently supply and conserve water, new pipelines and pump stations were constructed.

Treadwell was engaged to supply the grating and stair treads for this upgrade.





Treadwell's Solution:

1. Treadwell's team of certified engineers are skilled in ensuring grating deflection always meets the relevant compliance codes and industry standards.
2. Treadwell has ample stockholdings to ensure timely completion of projects.
3. GratEX® FRP stair treads and decking panels are easily customised to requirements.
4. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
5. Being lightweight and easy to install, FRP is very manageable during construction.
6. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Victoria - Cardinia Fluoride Dosing Plant

What is SecurEX® Fencing & Screening Solutions?

Treadwell's SecurEX® solution consists of our signature FRP grating panels and ArchitEX™ structural profiles. Constructed from premium resin systems, Treadwell's FRP fencing and screening solutions are ideal across a diverse range of industries. Designed with anti-climb features, along with security benefits like low conductivity and addressing safety concerns, SecurEX® can be fitted with razor hoops and barbwires for added security, to give you added peace of mind.

Design Life

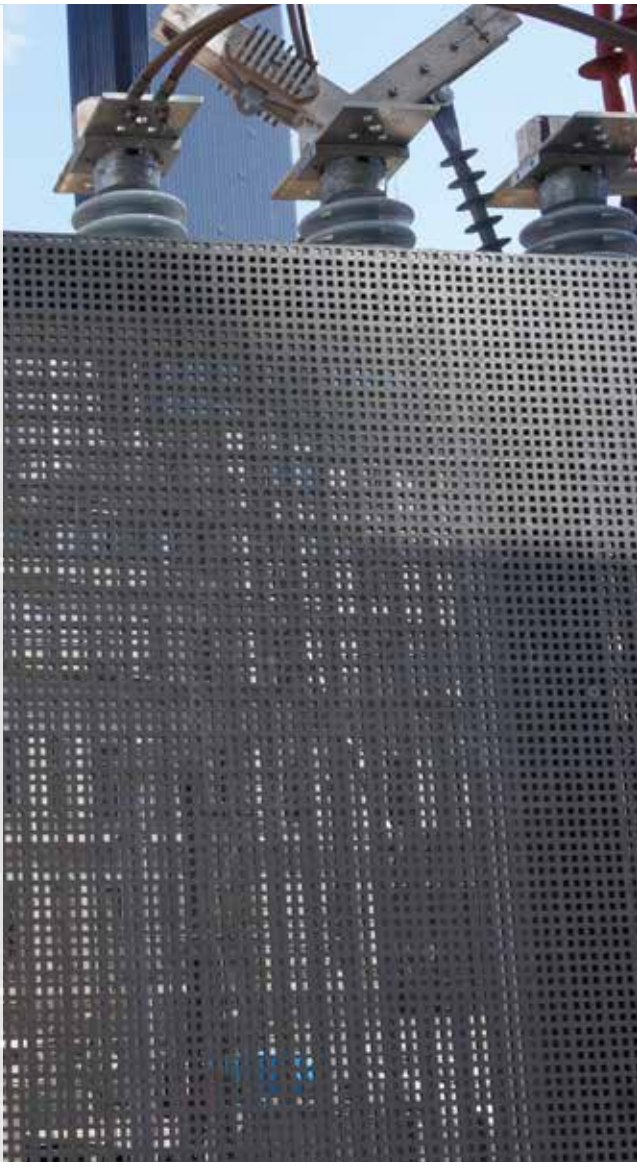
Minimum 50 years design life in case proven and also accelerated UV testing to ASTM G154-06.

Suitability

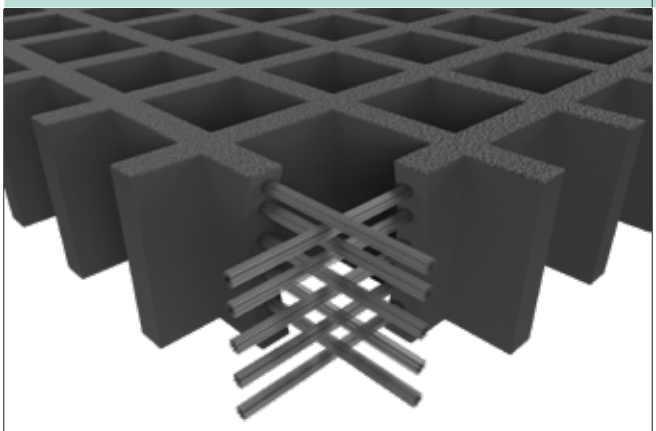
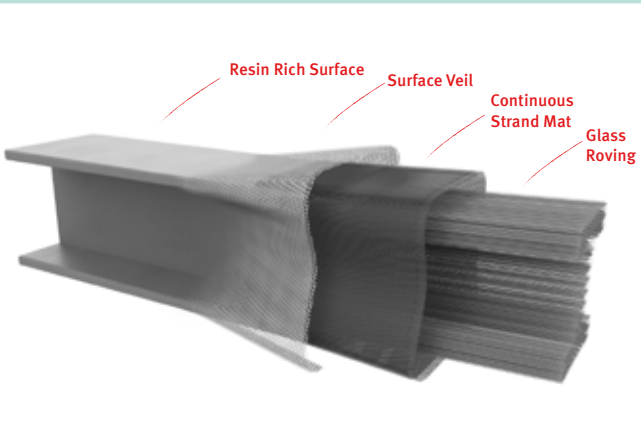
Our analysis shows that the capacities of the FRP members used for fence system are adequate to support shear and bending.

Deflection Note

The deflection at mid-height under serviceability wind condition is 90mm. The deflection limit recommended by Table C1 of AS/NZS 1170.0 for wall elements (Walls- General (face loaded)) is Height/150 at mid-height under serviceability wind conditions. This is equal to 25mm. The fence structure would deflect for a short time at the highest wind gust only.



Materials of Construction

SecurEX® (GratEX®) FRP Screening Mesh	SecurEX® (ArchitEX™) FRP Pultrusions
	
Screening is constructed using this method of manufacturing.	Palisade pickets posts & rails are all constructed using a pultrusion process.

Case Study – Fencing & Screening

PROJECT INFORMATION	
Project Category:	Utilities Infrastructure
Scope of Work:	Supply FRP Solution
Treadwell Products:	SecurEX® FRP Fence Systems EX-Series® GratEX® FRP Grating ArchitEX™ FRP Structural Profiles

Treadwell's SecurEX® FRP Fencing System is suited for a wide range of industries where security fencing and screening are required. SecurEX® FRP Fencing System is non-conductive and non-corrosive, making it suitable for highly corrosive environments.

Treadwell's composite fencing solution is the perfect choice due to the adaptable designs. Easily bolted down or embedded, it can be fabricated to suit any requirement. Based on the required quantities and specifications, the resin system is easily adapted to meet requirements. The ease of installation, along with incredibly low maintenance, makes SecurEX® FRP Fencing an ideal choice.

Treadwell's Solution:

1. Treadwell's FRP products and systems are customisable to project requirements.
2. Fencing can be mesh grating or palisade style depending on application.
3. Wind loading factors are taken in consideration when recommending type of fence system.
4. Treadwell's FRP products and systems are termite proof, corrosion resistant, radio frequency transparent, and long lasting – making this the ideal choice.
5. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
6. Being lightweight and easy to install, FRP is very manageable during construction.
7. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

SAFE-SERIES™
Industrial Anti-Slip Solutions

Anti-Slip Safety Solutions

SAFE-SERIES™ is Treadwell's selection of pre-manufactured and ready made for installation anti-slip products for harsh environments.

Fabricated from FRP composites, anti-slip decks and rung covers are easy to install over existing stairs to create the toughest and most dependable anti-slip surface available.

Proven in many applications, the series is available in various styles and colours to suit any environment.

StairSAFE™

Long wearing, anti-corrosive, non-slip nosing designed to re-profile the leading edge of any step are the characteristics of StairSAFE™.

CableSAFE™

CableSAFE™ creates a safe walkway over exposed pipes, cables, wires and conduit. With a durable anti-slip surface, CableSAFE™ provides a safety bridge for foot traffic over these areas, avoiding slips, trips and falls.

RungSAFE™

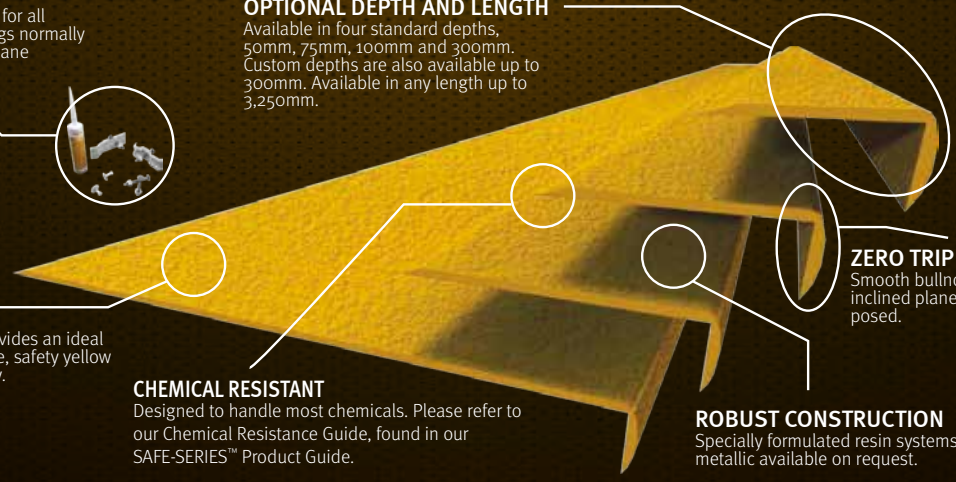
The abrasive grit surface eliminates the very high possibility of slips from access ladders, avoiding serious ramifications. The surface, while ideal for the negation of slip issues, has been developed so as not to damage bare skin.

DeckSAFE™

DeckSAFE™ is the ultimate solution for slippery ramps, decks, catwalks and landings. Designed to reduce the risk of slips, trips and falls in areas where oil, water and other forms of liquids are present, DeckSAFE™ greatly reduces risks.

EASY INSTALLATION
Heavy duty industrial fixings for all applications. Surface for rungs normally applied by using a polyurethane adhesive glue system.

OPTIONAL DEPTH AND LENGTH
Available in four standard depths, 50mm, 75mm, 100mm and 300mm. Custom depths are also available up to 300mm. Available in any length up to 3,250mm.



ZERO TRIP RISK
Smooth bullnose, sloped on an 85° inclined plane ensures no trip risk is posed.

SAFETY
Heavy duty grit layer provides an ideal anti-slip surface; likewise, safety yellow offers enhanced visibility.

CHEMICAL RESISTANT
Designed to handle most chemicals. Please refer to our Chemical Resistance Guide, found in our SAFE-SERIES™ Product Guide.

ROBUST CONSTRUCTION
Specially formulated resin systems and metallic available on request.

Case Study – Point Fairy Domestic Water Reclamation Plant

PROJECT INFORMATION	
Project Category:	Stairnosing retrofit
Scope of Work:	Supply FRP products
Treadwell Products:	StairSAFR® FRP Stair Nosing

This water reclamation plant provides sewage treatment services to residential and business customers. Using an Intermittently Decanted Extended Aeration (IDEA) process, sewage goes through four one-hour treatment cycles. The four cycles include two stages of aeration, settling and decanting the treated water from the surface of the tank. Treated water then travels through a UV disinfection process, which assists in eliminating harmful bacteria. Clear water is then released to the ocean.

Treadwell was engaged to supply the FRP stair nosing for the plant's staircases.

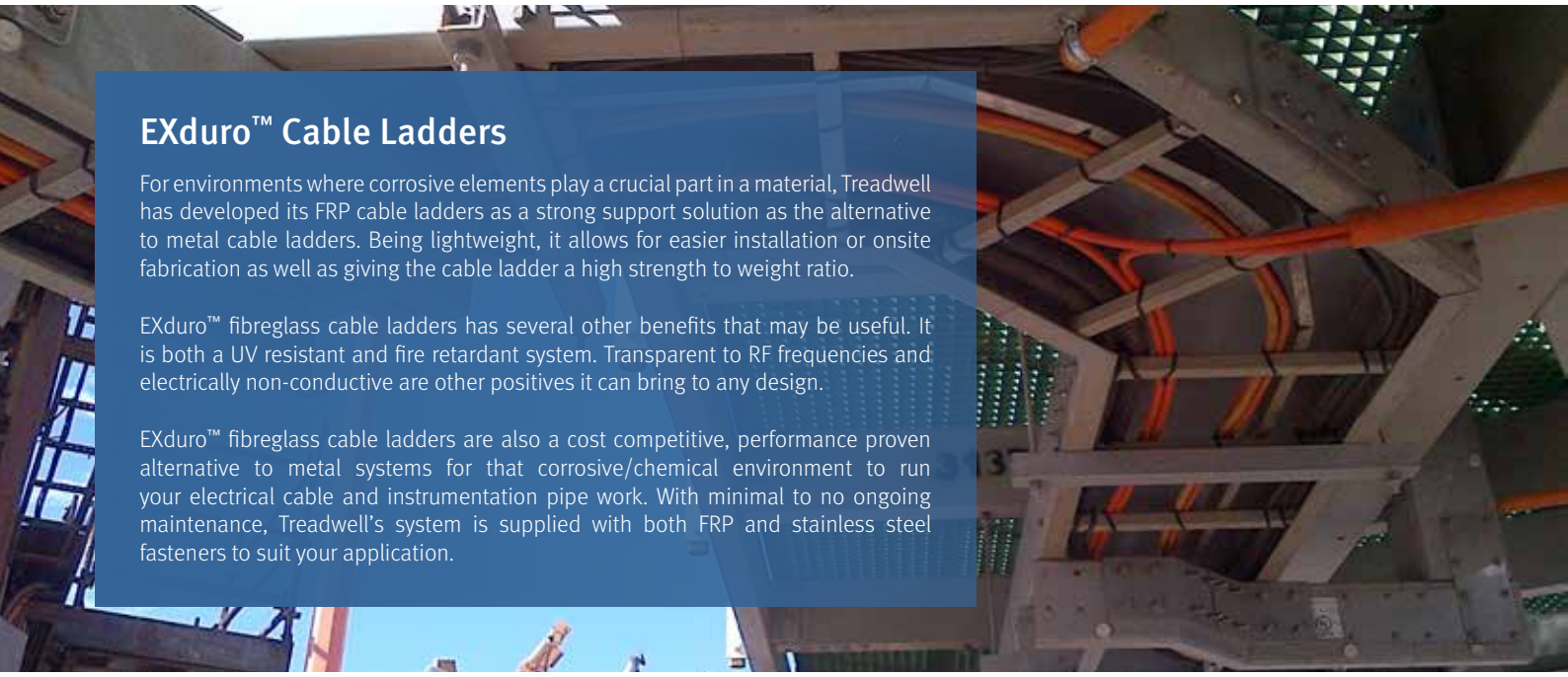
Treadwell's Solution:

1. StairSAFE® FRP stair nosings are available in a range of depths and sizes, allowing for optimal fit to steps.

2. Grit is impregnated into the stair nose surface, this means that the surface is long-wearing and will withstand heavy foot traffic.

Please consult our SAFE-SERIES™ Product Guide for more information.

EXduro™ FRP Cable Management Products



EXduro™ Cable Ladders

For environments where corrosive elements play a crucial part in a material, Treadwell has developed its FRP cable ladders as a strong support solution as the alternative to metal cable ladders. Being lightweight, it allows for easier installation or onsite fabrication as well as giving the cable ladder a high strength to weight ratio.

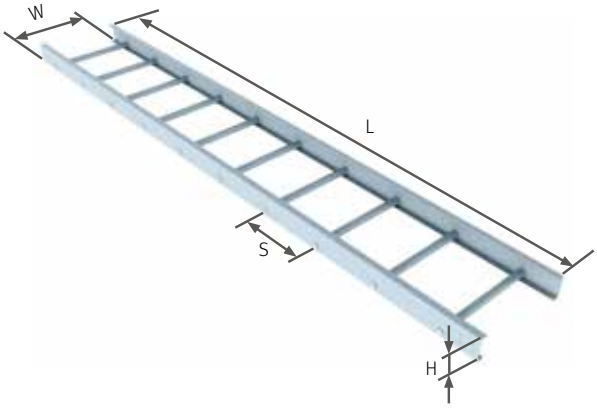
EXduro™ fibreglass cable ladders has several other benefits that may be useful. It is both a UV resistant and fire retardant system. Transparent to RF frequencies and electrically non-conductive are other positives it can bring to any design.

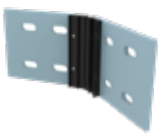
EXduro™ fibreglass cable ladders are also a cost competitive, performance proven alternative to metal systems for that corrosive/chemical environment to run your electrical cable and instrumentation pipe work. With minimal to no ongoing maintenance, Treadwell's system is supplied with both FRP and stainless steel fasteners to suit your application.

F-EXD-CL-C(H)(W)-(R)(S)-(RS)(C)-(L)

Side Rail Height (H)	Width (W)	Rung Type (RT)	Rung Spacing (S)	Resin (RS)	Colour (C)	Length (L)
50mm (050)	150mm (150)	Standard Rung (S)	150mm (150)	Standard Polyester (SI)	Light Grey (LG)	3m (1) N
75mm (075)	300mm (300)	Marine Rung (M)	250mm (250)	Standard Vinylester (SV)	Custom Colour (CC)	6m (2) C
100mm (100)	450mm (450)		300mm (300)	Conductive Polyester (CI)		
150mm (150)	600mm (600)		450mm (450)	Conductive Vinylester (CV)		
200mm (200)	750mm(750)			Halogen free Polyester (HI)		
	900mm (900)			Halogen free Vinylester (HV)		
				Halogen free Low Smoke Plus (HF)		

EXduro™ Cable Ladder



Straight splice plate	90 Vertical splice plate
	
Adjustable vertical splice plate	**Adjustable Horizontal splice plate**
	

Cable Ladder Splice Plates

Our splice plates are available in both horizontal and vertical degree sections. We also offer the accompanying accessories separately. We construct both flat and peaked covers. These plates are non-conductive and do not react on electric and magnetic fields.

CALL 1800 246 800 | sales@treadwellgroup.com.au | treadwellgroup.com.au

Case Study – Desalination Plant Instrument Stand

PROJECT INFORMATION	
Project Category:	Desalination Plant
Scope of Work:	Provide customised instrument stands
Treadwell Products:	EXduro™ FRP Instrument Stands

Our client was one of the designated subcontractors for the design, development, implementation, testing and commissioning of a desalination plant in Australia. This was part of an expansion project that would double the capacity of the existing plant.

As per the plans, this new infrastructure would be integrated to the existing operations. This called for instrument stands, among other improvements, to be installed. Treadwell was engaged to provide the FRP solution to address these requirements.

Treadwell's Solution:

1. EXduro™ instrument stands do not rust even in constant exposure to various oxidising conditions.
2. EXduro™ instrument stand posts were customised to fit the application.
3. FRP is simply fabricated and modified on site. This means there is no need for any hot works permit.
4. Being lightweight and easy to install, FRP is very manageable during construction.
5. Given the nature of FRP, any system utilising it is virtually maintenance free, keeping maintenance costs to a minimum.

Darwin, Northern Territory - Leanyer Sanderson

Our Partners

Strathalbyn, South Australia Factory & Warehouse

Material Availability

We have established extensive stockholdings in Australia, ready to be fabricated or shipped according to your project requirements. With offices and warehouses located throughout Australia, shipment to site can be quickly arranged.

Our in-house design and engineering teams have exceptional CAD capabilities. Our factory features top of the range automated CNC equipment allowing project requirements to be quickly fulfilled.

Strathalbyn, South Australia Factory & Warehouse

Australia

SOUTH AUSTRALIA

- **ADELAIDE (HEAD OFFICE & WAREHOUSE)**

  58 DEEDS ROAD
  NORTH PLYMTON, SA 5037

- **STRATHALBYN (FACTORY & WAREHOUSE)**

  22 DUNREATH ROAD
  STRATHALBYN, SA 5255

VICTORIA

- **MELBOURNE (BRANCH OFFICE & WAREHOUSE)**

  37 MACAULAY STREET
  WILLIAMSTOWN, VIC 3016

NEW SOUTH WALES

- **SYDNEY (SERVICED OFFICE)**

  SUITE 9, 35-36
  EAST ESPLANADE MANLY, NSW 2095

- **WAGGA (BRANCH OFFICE & WAREHOUSE)**

  13 CHESHIRE ST,
  WAGGA WAGGA, NSW 2650

QUEENSLAND

- **BRISBANE (SERVICED OFFICE)**

  OFFICE 32, 59 ALBANY CREEK ROAD
  ASPLEY, QLD 4034

WESTERN AUSTRALIA

- **PERTH (BRANCH OFFICE & WAREHOUSE)**

  UNIT 2, 4 ELMSFIELD ROAD
  MIDVALE, WA 6056

TASMANIA

- **BURNIE (DISTRIBUTION CENTRE)**

  28-30 BRICKPORT ROAD
  COOEE, TAS 7320

New Zealand

NORTH ISLAND

- **PALMERSTON NORTH (OFFICE & WAREHOUSE)**

  36 RATANUI STREET AORANGI,
  FEIDLING 4775

TREADWELL™
COMPLETE **"Fit & Forget"** SOLUTIONS