

ROSTFREI STEELSTM
STORAGE TANKS



REAMAN INDUSTRIES

STORAGE TANK

Reaman Industries is a company with 50 years' experience working in New Zealand and around and Pacific providing water and waste water treatment plants and storage tanks.

Reamans is the New Zealand agents for ROSTFREI and are proud to have a range of tanks that are engineered and manufactured for NZ building consent requirements.

ROSTFREI have a large range of Tanks made from Tara Blue Steel and come with up to 36 year warranty* and PS1 Certificate by Registered Structural Engineer. ROSTFREI has more than 8000 installations in 25 countries worldwide including New Zealand.

Reaman Industries: 7 Tangaroa Street, Ahuriri, Napier 4142. Tel 068433155. E Info@reaman.co.nz

www.reaman.co.nz

ROSTFREI STEELS

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About Us

With 10+ years of experience in manufacturing facility, ROSTFREI STEELS is committed to create innovative ideas for Storage Tanks and Storage Silos through constant research and development. We are pledged to deliver the best quality and innovative technologies to our clients, keeping up with the ever-changing requirements of the industry. Incepted in 2005, our company has earned an expertise in fabricating and engineering steel structures in multiple dimensions. We provide design & manufacturing engineering support, outstanding customer service, consistent product quality, and on-time delivery of our products. The combination of our Zinalume technology and our experienced engineering staff allows us to reduce costs significantly, delivering on time, every time.

Our Products:

- Liquid Storage Tanks
- Zinalume Tanks
- GLS Tanks
- Grain Storage Silos
- Hopper Bottom Silo
- Flat Bottom Silo
- Material Handling Equipment
- Fittings & Accessories

Certifications:

- ISO 9001:2008
- ISO 9001:2015
- DUN & BRADSTREET

In Compliance With

- AUSTRALIAN STANDARDS
- FM GLOBAL STANDARDS
- INDIAN STANDARDS





ROSTFREI STEELS

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Why Rostfrei Steels?

1. VOLUME

Rostfrei tanks range from 10 cubic meters to 5000 cubic meters.

2. PREFABRICATION

Our prefabricated design allows the tank to be dis-assembled and relocated as many times as desired.

3. LINER

Rostfrei offers a range of state-of-the-art liner technologies suitable for almost all applications. Our reinforced liners are capable of supporting water pressures of more than 2kg/cm² and are capable of storage of wide variety of liquids.

Standard Liners

Manufactured from reinforced, multi-layered, food-grade anti-algae, UV stabilized PVC liner with a woven multifaceted nylon scrim, the Rostfrei liner is primarily used for installation in lighter commercial and rural domestic tank designs. Consisting of three bonded layers of PVC fabric, it ensures a homogenous bond between each layer. The inert nature of the PVC prevents it from affecting the stored liquids.



4. CORRUGATION TECHNOLOGY

Our tanks come in a strong corrugated profile and are stiffened with unique 'W' stiffeners with much higher strength and reliability than normal one. Our unique corrugation technology of uniform pitch and depth makes it a premium one as it acts as a structural reinforcement and shock absorber for earth movement or soil subsidence.

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Why Rostfrei Steels?

5. ZINCALUME

Zincalume is the new cutting edge technology that has given our tanks the best enhanced and aesthetic features. Our expertise in manufacturing Zincalume tanks sets us apart from others. "Zincalume tanks" are fabricated using the highest grade of "Zincalume steel" which lasts up to four times longer than galvanized steel and ensures superior performance and durability. Powered by hot galvanised AZ150 coating of 43.5% Zinc, 55% Aluminium and 1.5% Silicon, this extensive research technology makes Rostfrei tanks 30% to 40% more corrosion resistant than hot galvanized Z275 steel. With an increasing demand for its durability, resilience and sustainability, Zincalume is bound set the next generation standard in the coming years.



6. BOLTED TECHNOLOGY

The well-devising bolting and welding features makes our tanks much easier to install and relocate. Unlike conventional tanks, our tanks do not require sealing and coating on-site.

7. WARRANTY

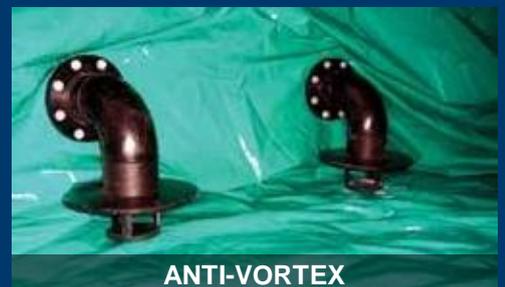
For COLORBOND® steel and ZINCALUME® steel, Tata BlueScope Steel offers a 36 Yr Warranty against corrosion by weathering and RS a full 10 Year Warranty, on parts and workmanship.



TURBINE VENT & ACCESS HATCH
or MANHOLE



NOZZLES



ANTI-VORTEX



ROSTFREI STEELS

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Advantages

Relocatable

Rostfrei tanks supports easy relocation of the tanks anytime, even after years of use. The BOLTED Technology enables tanks to be dismantled and reassembled even if it requires changing site locations.



Expandable

Our tanks supports expansion of tank capacities as and when required. Our team can work on expanding tank volumes anytime without posing any damage to actual tank.

Light-Weight & easily Transportable



Due to the materials use in our products these are light-weighted therefore they are easy to lift and handle. It makes our products easy to transport.

Strong and Durable



The use high tensile strength of ZINCALUME steel make our products strong, making the longer life expectancy of our products up to 40-50 years.

Maintenance free



Rostfrei Tanks are very easy to maintain under general environment conditions, and if well-maintained our tanks enjoy wonderful longevity.

Advantages that sets us apart

EXCELLENCE

Highly cost-effective

tanks are highly cost-effective when compared to other traditional tanks.

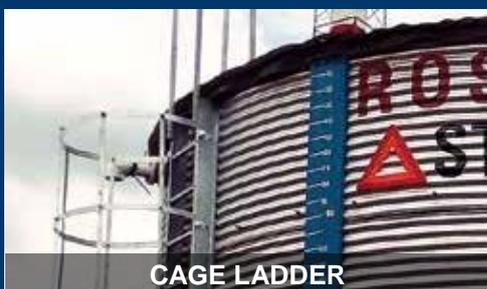


Easy to Install

Our tanks have pre-approved designs and take the least time for on-site installation.

Environment Protected

Our tanks are designed to withstand cyclonic wind velocity of 88 m/sec and earthquake zone IV.



CAGE LADDER



LEVEL INDICATOR



SIDE-MANHOLE

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Comparison

Rostfrei Zinalume and Colorbond steel kit form Storage Tanks with Liner	Bolted and welded Steel tanks without liner	Concrete tanks
High Grade Reinforced Liner. Forecasted to last 50- 60 years in a fully roofed tank. Using a liner ensures there is no contact between the steel structure and the stored water (no use of silicones or sealants required).	Water in direct contact with the steel structure compromising longevity of tank. Problems occur as a result of silicones used to seal bolt joins.	Concrete is porous in nature, which allows seepage of water over time. Since water is directly in contact with concrete wall, this eventually leads to cracking, spalling, scaling, lime deposition and contamination.
Flexible steel wall with a unique and strong corrugated profile. The internal liner and tank shell can move independently of each other.	Limited flexibility due to use of silicones or sealants over lap joints (these will break the tanks down over time).	Rigid, Inflexible structure incapable of withstanding movement without cracking. (movement as a result of heavy machinery, unstable ground or soil subsidence).
Modular, kit form structure. Easy to lift and handle, can be installed almost anywhere. Can also be installed on building roof tops and on project sites where space is restricted	Tank wall panels are considerably heavier and therefore more difficult to transport and install on site, especially if site access is limited or restricted. Larger tanks will require the use of a crane to lift the wall panels into position.	Concrete tanks are not suited for hilly regions and irregular terrains due to difficulty to reach locations or inaccessible sites.
Tanks can be shipped or transported almost anywhere. Each tank knocks down to only 1% of its fully assembled size, allowing us to pack between 15-25 units into a sea container. Tanks can be transported by sea, rail or air if required.	Installation of these tanks is subject to site access or weight restrictions. Damage to the coatings used to seal the steel can occur during transit.	These tanks have limitations as in where they can be transported and installed due to the lack of availability or locality settlements near the site of a batching plant.
Completely modular knock down design. All components are of consistent quality as they are produced in a controlled factory environment and checked prior to despatch (in accordance with ISO 9001)	Welded steel tanks require thorough labour intensive checking to ensure all joins are adequately sealed or water tight.	Not all batches of concrete are of the same quality or consistency. Longer installation and curing times will result from the material being of inconsistent quality and weaker areas will eventually cause cracking to appear in wall structure.
In the event of accidental damage, all components of the Rostfreisteel tank are replaceable. This means that the customer does not need to buy a new tank. Replacement parts can be air freighted if required.	Square and rectangular bolted steel tanks have a considerable amount of internal and external bracing. These bracings are in direct contact with the stored water and will corrode after a period of time causing discoloration of the water. Replacement and refurbishment costs are very high.	"Repairs are not effective and will not last and replacement costs are high. Rostfreisteel tank liners are often used to repair cracked or leaking concrete tanks due to the economical cost."
The Rostfreisteel kit form tanks are demountable and can be relocated to a new location if required.	Steel bolted tanks can be relocated however considerable work and expense is required to do this.	Permanently installed structure that cannot be moved to another location without a great deal of difficulty or expense
Full range of factory pre-coated colors is available. Tanks can also be painted if desired.	Limited colors available.	Limited colors available.

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Comparison

Rostfreisteel Tanks can be commissioned and used immediately after installation. No curing process required. Tanks up to 248,000 litres in capacity can be installed in one or two days.	Construction time is considerably longer than the Rostfreisteel kit form tank.	Concrete tanks may take several days to complete. Curing can take up to 28 days depending on weather conditions at the time of installation.
All Rostfreisteel tanks contain a fully welded one piece liner (like a giant bag) no sealing is required.	End sealing of bolted steel tanks without a liner is a difficult task. These tanks do not have a continuous seal.	
Tank liner is designed to move with any flexing of the tank wall.	Steel floor has limited flexibility.	Concrete floor has limited flexibility.
Low cost for high quality product that is built to last. Installation is simple and fast and tanks can be filled immediately upon completion of construction.	High cost. Construction time is moderate however can be labour intensive due to the weight of the steel panels.	Highly labour intensive with considerable time required for construction.

Comparison between various types of tanks

Features	Our Tank	MS Tank	RCC Tank	SS Tank	PVC Tank
Cost (Rs/litre)	2.00 to 10.00	3.00 to 12.00	5.00 to 15.00	17.00 to 35.00	3.00 to 12.00
Maintenance	Not Required	Highly Required	Required	Not Required	Highly Required
Food Grade	Yes	No	No	Yes	Yes
Algae Formation	No	Yes	Yes	No	Yes
Corrosion	No	Yes	Negligible	No	No
Relocation	Easy	Difficult	Not Possible	Difficult	Easy
Weight	Light	Heavy	Very heavy	Heavy	Light
Expandable	Yes	No	No	No	No
Liquid Temperature	Negligible	Increase	Increase	Increase	Increase
Life of complete tank	40-60 Yrs	7-15 Yrs	30-80 Yrs	60-80 Yrs	5-10 Yrs
Need painting/ coating	No	Yes	Yes	No	No

RESEARCH & DEVELOPMENT

Rostfrei believes in bringing out the best by constant learning and developing its products through continuous research by expert research and development team. We implement the best and the latest technology, 3-D CAD packages and other strategic changes in the products.

		ZA02	ZA03	ZA05	ZA08	ZA12	ZA15	ZA20	ZA25	ZA30	ZA40	ZA45	ZA50
No. of rings	wall height	Dia. 1.84	Dia. 2.77	Dia. 3.69	Dia. 4.61	Dia. 5.53	Dia. 6.46	Dia. 7.38	Dia. 8.30	Dia. 9.23	Dia. 10.15	Dia. 11.07	Dia. 12.00
R1	1.12	2.98	6.75	11.97	18.68	26.89	36.69	47.89	60.57	74.90	90.58	107.74	126.60
R2	2.08	5.53	12.53	22.23	34.70	49.93	68.14	88.93	112.48	139.10	168.22	200.09	235.12
R3	3.03	8.05	18.25	32.39	50.55	72.74	99.26	129.55	163.86	202.64	245.04	291.48	342.51
R4	4.00	10.63	24.09	42.75	66.73	96.02	131.04	171.02	216.31	267.51	323.49	384.79	452.16
R5	4.95	13.16	29.81	52.91	82.58	118.83	162.16	211.64	267.69	331.04	400.32	476.18	559.55
R6	5.90	15.68	35.54	63.06	98.43	141.64	193.28	252.25	319.06	394.57	477.15	567.57	666.94
R7	6.87	18.26	41.38	73.43	114.61	164.92	225.06	293.72	371.52	459.44	555.60	660.88	776.58
R8	7.82	20.78	47.10	83.59	130.46	187.73	256.18	334.34	422.90	522.97	632.42	752.27	883.97
R9	8.80	23.39	53.00	94.06	146.81	211.25	288.28	376.24	475.89	588.51	711.68	846.54	994.75
R10	9.76	25.94	58.79	104.32	162.83	234.30	319.73	417.28	527.81	652.71	789.32	938.89	1,103.27

		ZA60	ZA70	ZA80	ZA90	ZA100	ZA110	ZA120	ZA130	ZA140	ZA150	ZA160	ZA170	ZA180	ZA190	ZA200
No. of rings	wall height	Dia. 12.92	Dia. 13.84	Dia. 14.77	Dia. 15.69	Dia. 16.61	Dia. 17.53	Dia. 18.45	Dia. 19.37	Dia. 20.29	Dia. 21.21	Dia. 22.16	Dia. 23.08	Dia. 24.00	Dia. 24.90	Dia. 25.85
R1	1.12	146.76	168.41	191.80	216.44	242.56	270.18	299.28	329.87	361.95	395.52	431.74	468.34	506.42	545.11	587.50
R2	2.08	272.56	312.76	356.20	401.96	450.48	501.76	555.81	612.62	672.20	734.54	801.81	869.77	940.5	1,012.35	1,091.07
R3	3.03	397.04	455.60	518.89	585.54	656.22	730.93	809.66	892.42	979.21	1,070.72	1,168.02	1,267.02	1,370.04	1,474.72	1,589.40
R4	4.00	524.15	604.45	685.00	772.99	866.30	964.92	1,068.86	1,178.12	1,292.69	1,412.57	1,541.95	1,672.64	1,808.64	1,946.83	2,098.22
R5	4.95	648.63	744.30	847.69	956.58	1,072.05	1,194.09	1,322.72	1,457.92	1,599.70	1,748.06	1,908.16	2,069.89	2,238.20	2,409.20	2,596.55
R6	5.90	773.12	887.14	1,010.38	1,140.16	1,277.79	1,423.26	1,576.57	1,737.72	1,906.71	2,083.55	2,274.37	2,467.14	2,667.74	2,871.58	3,094.87
R7	6.87	900.23	1,033.00	1,176.49	1,327.62	1,487.87	1,657.26	1,835.77	2,023.42	2,220.19	2,426.09	2,648.29	2,872.75	3,106.34	3,343.68	3,603.70
R8	7.82	1,024.71	1,175.84	1,339.18	1,511.20	1,693.62	1,886.43	2,089.63	2,303.22	2,527.21	2,761.58	3,014.850	3,270.00	3,535.90	3,806.06	4,102.02
R9	8.80	1,153.13	1,323.20	1,507.00	1,700.58	1,905.86	2,122.83	2,351.50	2,591.86	2,843.91	3,107.66	3,392.28	3,679.80	3,979.01	4,283.03	4,616.08
R10	9.76	1,278.92	1,467.55	1,671.40	1,886.10	2,113.70	2,354.42	2,608.03	2,874.61	3,154.16	3,446.68	3,762.35	4,081.23	4,413.08	4,750.27	5,119.65

Tank sizes shaded Red are subject to Engineering and Design. Please refer to Rostfrei for design requirements. Please note: All capacities are in Kilotres

Method of selection

Horizontally Dia in Mtr eg 1.84, 2.77, 3.69, 4.61.....

Vertically Height of tank in Mtr. eg 1.12, 2.08, 3.03, 4.00.....

White column Volumes in Cub Mtr. eg 2.98, 6.75, 5.53, 12.53

For Example

If we are looking for a tank of 25KL then we have following options

Volume (Cub Mtr)	Dia (Mtr)	Height (Mtr)	Model
24.09	2.77	4.00	ZA03R4
22.23	3.69	2.08	ZA05R2

GROWING RELATIONSHIPS THROUGH DATA

REAMAN INDUSTRIES. PHONE :06-8433155 EMAIL : info@reaman.co.nz

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