Rostfrei Steels

STORAGE TANKS

COMPANY PROFILE

ROSTFREI STEELS PVT. LTD. an ISO 9001:2008/15 and D&B certified organization with its excellent service, product quality and proven track record, has established itself as the premier OEM manufacturer and turnkey service-provider of LIQUID & GRAIN STORAGE TANKS & SILOS. Our products range from highly customised ZINCALUME and GLASS-FUSED-TO-STEEL Tanks and Silos best fit for storage of seeds, grains, pure water, waste-water, oil, chemicals, molasses etc. ROSTFREI has executed more than 8000 installations in approximately 25 countries worldwide.
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 Zincalume technology and our experienced engineering staff allows us to reduce costs significantly, delivering on time, every time.

Our Products:
- Liquid Storage Tanks
- Zincalume 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
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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 multifacient 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.
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 takes 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. CUSTOMISABLE

We provide tailored formations based on geographical and environmental conditions and also as per the requirements of our esteemed clients.

www.rostfreisteels.com
Why Rostfrei Steels?

Advantages

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. Customisable
We provide tailored formations based on geographical and environmental conditions and also as per the requirements of our esteemed clients.

- 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.

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

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

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

Advantages that sets us apart

40 YEARS EXCELLENCE
## Comparison

<table>
<thead>
<tr>
<th>Rostfrei Zincalume and Colorbond steel kit form Storage Tanks with Liner</th>
<th>Bolted and welded Steel tanks without liner</th>
<th>Concrete tanks</th>
</tr>
</thead>
<tbody>
<tr>
<td>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).</td>
<td>Water in direct contact with the steel structure compromising longevity of tank. Problems occur as a result of silicones used to seal bolt joins.</td>
<td>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.</td>
</tr>
<tr>
<td>Flexible steel wall with a unique and strong corrugated profile. The internal liner and tank shell can move independently of each other.</td>
<td>Limited flexibility due to use of silicones or sealants over lap joints (these will break the tanks down over time).</td>
<td>Rigid, inflexible structure incapable of withstanding movement without cracking. (movement as a result of heavy machinery, unstable ground or soil subsidence).</td>
</tr>
<tr>
<td>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.</td>
<td>Tank wall panels are considerably heavier and therefore more difficult to transport and install on site, especially if site access is limited or restricted. Lager tanks will require the use of a crane to lift the wall panels into position.</td>
<td>Concrete tanks are not suited for hilly regions and irregular terrains due to difficulty to reach locations or inaccessible sites.</td>
</tr>
<tr>
<td>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.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>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)</td>
<td>Welded steel tanks require thorough labour intensive checking to ensure all joins are adequately sealed or water tight.</td>
<td>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.</td>
</tr>
<tr>
<td>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.</td>
<td>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.</td>
<td>&quot;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.&quot;</td>
</tr>
<tr>
<td>The Rostfreisteel kit form tanks are demountable and can be relocated to a new location if required.</td>
<td>Steel bolted tanks can be relocated however considerable work and expense is required to do this.</td>
<td>Permanently installed structure that cannot be moved to another location without a great deal of difficulty or expense</td>
</tr>
<tr>
<td>Full range of factory pre-coated colors is available. Tanks can also be painted if desired.</td>
<td>Limited colors available.</td>
<td>Limited colors available.</td>
</tr>
</tbody>
</table>

www.rostfreisteels.com
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.

All Rostfreisteel tanks contain a fully welded one piece liner (like a giant bag) no sealing is required.

Tank liner is designed to move with any flexing of the tank wall.

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.

Construction time is considerably longer than the Rostfreisteel kit form tank.

End sealing of bolted steel tanks without a liner is a difficult task. These tanks do not have a continuous seal.

Steel floor has limited flexibility.

High cost. Construction time is moderate however can be labour intensive due to the weight of the steel panels.

Concrete floor has limited flexibility.

Highly labour intensive with considerable time required for construction.

Comparision between various types of tanks

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

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.
<table>
<thead>
<tr>
<th>No. of rings</th>
<th>wall height</th>
<th>Dia. 1.84</th>
<th>Dia. 2.77</th>
<th>Dia. 3.69</th>
<th>Dia. 4.61</th>
<th>Dia. 5.53</th>
<th>Dia. 6.46</th>
<th>Dia. 7.38</th>
<th>Dia. 8.30</th>
<th>Dia. 9.23</th>
<th>Dia. 10.15</th>
<th>Dia. 11.07</th>
<th>Dia. 12.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>1.12</td>
<td>6.75</td>
<td>7.76</td>
<td>8.67</td>
<td>9.57</td>
<td>10.48</td>
<td>11.38</td>
<td>12.28</td>
<td>13.18</td>
<td>14.06</td>
<td>14.93</td>
<td>15.80</td>
<td>16.65</td>
</tr>
<tr>
<td>R2</td>
<td>2.08</td>
<td>12.53</td>
<td>13.98</td>
<td>15.43</td>
<td>16.87</td>
<td>18.30</td>
<td>19.73</td>
<td>21.16</td>
<td>22.59</td>
<td>23.94</td>
<td>25.27</td>
<td>26.60</td>
<td>27.93</td>
</tr>
<tr>
<td>R3</td>
<td>3.03</td>
<td>22.23</td>
<td>24.06</td>
<td>25.91</td>
<td>27.74</td>
<td>29.59</td>
<td>31.46</td>
<td>33.33</td>
<td>35.21</td>
<td>37.06</td>
<td>38.91</td>
<td>40.76</td>
<td>42.61</td>
</tr>
<tr>
<td>R4</td>
<td>4.00</td>
<td>42.75</td>
<td>45.63</td>
<td>48.54</td>
<td>51.47</td>
<td>54.39</td>
<td>57.31</td>
<td>60.23</td>
<td>63.15</td>
<td>66.07</td>
<td>68.98</td>
<td>71.89</td>
<td>74.80</td>
</tr>
<tr>
<td>R5</td>
<td>5.90</td>
<td>63.06</td>
<td>66.92</td>
<td>70.77</td>
<td>74.61</td>
<td>78.45</td>
<td>82.30</td>
<td>86.15</td>
<td>90.00</td>
<td>93.85</td>
<td>97.70</td>
<td>101.55</td>
<td>105.40</td>
</tr>
<tr>
<td>R6</td>
<td>7.82</td>
<td>83.59</td>
<td>88.44</td>
<td>93.29</td>
<td>98.14</td>
<td>102.99</td>
<td>107.84</td>
<td>112.69</td>
<td>117.54</td>
<td>122.39</td>
<td>127.24</td>
<td>132.09</td>
<td>136.94</td>
</tr>
<tr>
<td>R7</td>
<td>8.80</td>
<td>94.06</td>
<td>99.01</td>
<td>103.96</td>
<td>108.91</td>
<td>113.86</td>
<td>118.81</td>
<td>123.76</td>
<td>128.71</td>
<td>133.66</td>
<td>138.61</td>
<td>143.56</td>
<td>148.51</td>
</tr>
<tr>
<td>R8</td>
<td>9.76</td>
<td>104.32</td>
<td>109.27</td>
<td>114.22</td>
<td>119.17</td>
<td>124.12</td>
<td>129.07</td>
<td>134.02</td>
<td>138.97</td>
<td>143.92</td>
<td>148.87</td>
<td>153.82</td>
<td>158.77</td>
</tr>
</tbody>
</table>

For Example

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

<table>
<thead>
<tr>
<th>Volume (Cub Mtr)</th>
<th>Dia (Mtr)</th>
<th>Height (Mtr)</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.09</td>
<td>2.77</td>
<td>4.00</td>
<td>ZA03/R4</td>
</tr>
<tr>
<td>22.23</td>
<td>3.69</td>
<td>2.08</td>
<td>ZA05/R2</td>
</tr>
</tbody>
</table>

For certified improvement program ISO 9001:2015

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ROSTFREI STEELS PVT. LTD.

• WATERTANKS
• COMMERCIAL PROJECTS