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STAINLESS STEEL BOLTED TANK

BOLTED TANKS
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BENEFITS OF STAINLESS STEEL TANKS

- Light weight materials
- Better welding capability
- Lower cost maintenance
- Less thermal expansion
- Stronger
- More Durable
- Greater resistance to corrosion from time, weather, and use

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WHY USE STAINLESS STEEL?

THE PROPERTIES OF STAINLESS STEEL

Stainless steel lives up to its namesake by featuring a **high resistance to staining** caused by corrosion. Normally, when iron-based metals like steel are exposed to oxygen, they undergo a chemical transformation, known as oxidation, that changes their properties. The iron oxidizes while subsequently turning the otherwise hard iron into a reddish-brown metal (iron oxide). Eventually, the iron oxide will oxidize to the point where it disintegrates completely.

Stainless steel is designed to protect against oxidization. It features a minimum chromium content of 10.5% by mass. This is important because chromium, unlike iron, isn't susceptible to oxidation. Chromium can be exposed to oxygen without developing rust or corrosion, making it an invaluable element in the creation of stainless steel. Stainless steel features a **protective layer of chromium** that creates a barrier between environmental oxygen and the metal's iron content which protects it from corrosion.

STAINLESS STEEL COMPARED TO STEEL

Steel, i.e. low alloyed steel, comprises iron and a small quantity of carbon. Plain steel lacks other metals such as chrome, which means that it does not have the same resistance to corrosion as stainless steel. Steel is degraded more quickly, and rust forms more quickly as a result. The rust then spreads more easily throughout the material. The resistance to corrosion of stainless steel is one of the most important reasons for choosing it over plain steel for tank construction, but there are other reasons.

WHAT IS THE DIFFERENCE BETWEEN STAINLESS STEEL AND CARBON STEEL?

- **Stainless steel has a high chromium content which acts as a protective layer against corrosion and rust.**
- Carbon steel is high in carbon that when exposed to moisture can corrode and rust quickly.
- **Stainless steel is is more appealing to the eye and can be use for decorative products.**
- Carbon Steel is stronger and more durable then stainless steel. This is why carbon steel tanks require a proper lining system.

THE KEY ADVANTAGES TO USING STAINLESS STEEL

- ☑ **Low maintenance costs**
- ☑ **Low thermal expansion**
- ☑ **Durable**
- ☑ **Greater resistance to wear and erosion**

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STAINLESS STEEL STORAGE TANK USAGE

WHAT CAN STAINLESS STEEL BE USED FOR?

Stainless steel storage tanks are a recognized and reliable solution in providing bulk commodity storage for many types of content. These tanks are used in a wide range of industries, typically covering water and waste water treatment, potable water storage and related mediums.

- **Bolted Stainless Steel Tank Uses:**

- **Potable Water Storage**
  Reservoirs – Standpipes – Elevated Tanks – Fire Protection Tanks.

- **Non-Potable Water Storage**
  Containment, Storage, Processing of: Wastewater – Re-use water – Run-off water
  Fire protection water.

- **Dry or Bulk Storage**
  Corn – Sand – Powders – Sugar – Grain – Cement – Gravel – Wood chips
  Plastic products – etc.

- **Food Storage**
  Grain – Dry Product storage – Dry Product Process – Other Industrial dry storage

- **Innovative Design and Functional Extras**

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