

After a Quarter Century, Lake Hallie's Aquastore® Tank Remains Corrosion-Free

The Village of Lake Hallie, Wisconsin is served by a CST Aquastore® tank that's older than the town itself. Lake Hallie was incorporated in 2003, 11 years after the tank was built.

The 24-year-old tank has performed so well that the Village hadn't given it much thought until it commissioned the construction of a brand new Aquastore tank to accommodate the area's growth.

"The water department told us the existing Aquastore had received little or no maintenance since it was built," says Bill Barr, co-owner of Great Plains Structures, the authorized Aquastore dealer in the Upper Midwest and Near West. "We inspected the tank and the worst thing we saw was a combination of moss and mildew on the exterior finish."

The Village's original Aquastore sits on a hill in a wooded area and corrosion was a concern, but all it took was a little elbow grease to prove the Aquastore tank held up to the harsh conditions of a northern climate that sees big swings in temperature and continuous freezing and thawing.

"We started by cleaning a small section and within minutes you could see the original finish," says Jason Sixberry, co-owner of Great Plains Structures.

Crews gave the tank a makeover, resealing the edges, power washing the moss and mildew and applying a solvent to remove graffiti and the paint that the owner had applied years ago to cover it. The result? The porcelain enamel shine was fully restored at a minimal cost.

Repainting a welded tank costs more than three times as much as replacing the sealants of an Aquastore tank, which is made of



glass fused to steel. A municipal water provider in South Dakota estimates that maintenance for a glass-fused to steel tank over a 60-year span would cost \$266,000 compared for \$906,000 for a painted welded tank.

"A concrete or steel tank in those conditions, over that many years, would require major rehabilitation," says Barr. "It's that resiliency that keeps our customers coming back to the Aquastore time and again."

In addition to the cost, there are aesthetic concerns.

"Any painted surface is going to fade over time and that's not an image a utility wants to project," says Sixberry. "Plus, paint is only a temporary barrier against corrosion and needs frequent maintenance and recoating."

CST Storage is the world's largest provider of factory coated bolted storage tanks for liquid applications in many markets. And it's no wonder when you consider the quality that goes into the Aquastore, through a multi-step fabrication process:

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Corrosion spreads beneath the surface of painted or powder-coated metals, while the porcelain slurry of an Aquastore tank by its nature resists corrosion. And the Aquastore is available in a wide range of colors by mixing pigments into the slurry that's sprayed and fired onto the steel panel.

"Refined metals and concrete are especially vulnerable to the elements," says Barr of Great Plains Structures. "Corrosion can impact the life of a tank, so a tank's susceptibility to rust is one of the first things to consider. The materials used in the tank's construction will make a difference in how long the tank lasts."

"The Aquastore taught us an important lesson about downtime and expense," says village trustee Gary Spilde. "We've had zero downtime, not a single day, with that 24-year-old tank, and the impact of something like that on our budget is considerable. That's one of the main reasons we chose Aquastore for our second tank."

Lake Hallie is a proud community of 6,448 residents—still young and growing. And the future looks as bright as the lasting finish on both of its Aquastore tanks.

Benefits of CST's Aquastore® glass-fused-to-steel tanks:

- No painting for life of tank
- Will not corrode or rust
- Lowest total life cycle cost compared to concrete & welded
- Turnkey services from approval drawings to tank testing
- Faster construction
- No need for cranes or other large equipment for construction
- Expandable
- Interior & exterior easily cleaned
- Tank can be easily relocated
- Available in diameters from 11 feet (3.3 m) to 204 feet (62.2 m) and capacity from 20,000 gallons (75 cu m) to over 6 million gallons (22,700 cu m)
- Specific tank designs, options and accessories to meet customer needs
- Industry best warranty
- White interior coating
- Multiple color options
- Authorized network of local Aquastore Dealers for convenient service and support

OptiDome® geodesic aluminium domes are the preferred cover solution for any storage application. Aluminum dome structures are superior to other cover designs of alternate materials due to: corrosion resistance, low lifetime maintenance cost, clear-span capability, fast and low cost construction and design flexibility.

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