CST

OptiDome® FAQ Sheet

Why is CST changing to the new OptiDome design?

As with most industry leading companies, improved products are introduced to allow our customers greater value for their dollar spent. While making modifications to comply with some of the latest code changes, CST took the design one step further and introduced an innovative, robust design that has significant economic and sealing advantages with greater aesthetic appeal.

Do the new codes mean my existing dome is at risk?

No, codes change routinely and have done so for many decades. These code changes are meant to incorporate the latest industry experiences and take advantage of all the latest tools available to the engineering community. CST Covers heritage of Temcor and Conservatek have over 18,000 installations worldwide complying with all applicable local codes to ensure successful operation year after year.

How can I be sure the OptiDome is as robust as my existing CST dome?

The OptiDome has been put through a series of tests to ensure a structurally sound and leak tight operation. We've modified several components and created a design that is simple to install. All this with the same performance our customers have grown to expect. To-date CST has installed (15) Fifteen OptiDome's to the Municipal, Architectural and Oil and Gas markets.

Will the price increase for all these additional benefits?

No. There is no additional price increase for the standard OptiDome system.

However, due to the custom nature of many installations, options, like the non-exposed sealant at the gussets, may or may not have a slight cost impact. Please contact your local sales representative for pricing on specific projects/requirements.

Why should I choose a CST aluminum structure over steel?

Aluminum delivers unparalleled performance:

- Excellent corrosion resistance and durability – does not rust, rot, spall or require special coatings.
- Design flexibility
- High strength-to-weight characteristics
- Lightweight components reduce installation costs and minimize the impact on storage tank structure
- Lower life-cycle costs than steel (no painting for less downtime)
- Over 50% recycled content
- 100% recyclable

What benefit does the flush batten design offer?

Superior batten seal technology (patent pending) that increases water shedding and reduces potential ponding - even on a low profile design - and provides a water-tight cover solution. Featuring an enclosed gasket design, the batten protects against ultra-violet exposure and gasket degradation. Since battens are flush with dome panels, it promotes water shedding and eliminates ponding at the nodes. They are easy to install and require less sealant than typical geodesic domes.

What is torsional buckling and why does it matter?

Torsional buckling is a potential failure mode of structural systems. The new aluminum design manual (which is referenced by IBC 2012 and later) requires manufacturers to consider this failure mode during design. Over 60% of states/municipalities (and growing) have adopted either IBC 2012 or later.

Why does the OptiDome use a box channel rather than a traditional I-beam?

Box shapes have a greater resistance to torsional buckling than I-beams. Sufficient resistance can be built with the previous shapes, but it takes more material and cost to do so.

Why does an enclosed gasket offer a design advantage?

Gasket, just like any other manmade material, is subject to degradation over time with UV exposure. Material degradation can lead to leaks. By enclosing the gasket within the batten, the system is less susceptible to leaking over time.

I really like the old CST design, can I still get this product?

As with most industrial products, there will be a transition period between old and new. Speak with your CST sales representative about your options. The CST Covers team fully endorses the new design and recommends all customers take advantage of the additional benefits.

Can the OptiDome be installed the same way as the old CST design?

Yes. The same installation methodologies including tools and equipment can be used.