



ISOTRUSSTM CARBON FIBER CELL TOWERS PROVIDE COST-EFFECTIVE SOLUTIONS TO SUPPORT 5G DISTANCING AND RAPID ROLLOUT IN TELECOM

New IsoTruss Innovation Center in Utah Ramps Up Production to Meet Global Demand for Full 5G Rollout

Springville, UT—November 15, 2021—[IsoTruss, Inc.](#), an engineering, design, and manufacturing services provider, today announced the production launch of its patented IsoTruss[®] carbon fiber lattice cell towers, designed for telecom infrastructure providers to lower initial capital outlays, reduce labor, shipping and installation costs, and solve for full 5G distancing and speed of deployment matters.

“We are very pleased to ramp up production of our IsoTruss[®] carbon fiber cell towers to meet increasing telecom carrier-acceptance, and demand, for cost-effective, “build-to-suit” solutions to support full 5G rollout,” said [Nathan Rich](#), Chief Executive Officer of IsoTruss, Inc. “In our view, IsoTruss[®] cell towers provide a crucial cost-effective alternative to steel towers for telecom infrastructure providers. Plus, structural composites potentially offer a multi-billion dollar market for cell tower retrofit and renovation.”

IsoTruss[®] carbon fiber cell towers are twelve times stronger than steel, or 1/12 its weight, depending on the design. Ranging in height from 6 to 42 meters, the lightweight IsoTruss[®] composite cell towers are particularly suited to solve the “distancing” problem in 5G rollout, especially at sites with weight limits and zoning considerations, such as rooftops in densely populated urban settings, and in rural areas, which require “last-mile access.” Strength and wind resistance are maintained, no matter the height of the tower.

[IsoTruss[®] carbon fiber lattice towers](#) offer flexibility and modularity in structural design due to their particularly high strength-to-weight ratio, even over other composite structures. Composites in general are lighter than steel, wood and aluminum, but integration into the IsoTruss[®] lattice tower structure, which requires less carbon fiber material to fabricate, makes them even lighter, depending on the design for a site and its specifications.

The burgeoning demand for 5G connectivity across wireless broadband, fixed wireless, mobile broadband, as well as the Internet of Things (IoT) and Smart Cities will require hundreds of thousands more strong, lightweight, cost-effective, wind-resistant and structurally sound cell towers. The enterprise estimates U.S. tower construction build-out to be \$30 billion in total value over the next five years domestically, and many more billions globally.

“With the rising price of steel, IsoTruss[®] carbon fiber cell towers are getting closer to parity on an apples to apples comparison,” said [Cromwell Wong](#), Chief Operating Officer of IsoTruss, Inc. “The designs that we’re producing feature really lightweight, super strong, eco-friendly solutions with the aim of building the sustainable infrastructure of the future. Market conditions related to 5G technology developments combined with fast changing climate conditions are causing infrastructure decision-makers to place more emphasis on sustainability, and we think IsoTruss[®] offers significant advantages through the reduction in carbon emissions versus steel build-outs.”

Because they are so lightweight, IsoTruss[®] cell towers are less expensive to ship as compared to steel towers. Labor and installation costs are lower, too, as a smaller crane, or even a ladder, can be utilized by small crews to lift the tower all at once, significantly decreasing the time, expense and environmental impact of heavy equipment and large installation crews required for equivalent steel cell tower build-outs, deliveries, and installations. Those reductions together decrease cell tower carbon emissions by 70% to substantially lower the total cost of ownership (TCO).

The original IsoTruss[®] grid design, based on isosceles triangles, was invented by IsoTruss, Inc. Chief Technical Adviser and Brigham Young University Professor Emeritus David W. Jensen, Ph.D. He said, “The IsoTruss[®] combines high performing carbon fiber composite materials with a very efficient geometry to allow those elements to carry the load efficiently, allowing extremely lightweight and extremely high performance.”

The IsoTruss® carbon fiber lattice cell towers are designed by the firm’s innovative team of engineers, all of whom are graduates of the Ira A. Fulton College of Engineering at Brigham Young University or the University of Utah.

With the unique geometry of IsoTruss® lattice structures, there is more latitude and a great deal of flexibility in customizing IsoTruss® cell towers to customer specifications. IsoTruss® lattice structures feature modularity in design, painting is optional, and no electrolysis is required. Both fire retardant resins and lightening arresting systems--to give any lightning a quick direct path to the ground--can also be customized.

[IsoTruss® carbon fiber lattice cell towers](#) are designed, engineered and tested to last at least 5x longer than steel towers. In contrast, steel cell towers have to be replaced more often due to corrosion and other environmental factors, e.g., steel cell towers located in coastal regions with high humidity typically have a five year life span, and in other less humid regions, a 25 year lifespan.

Each lattice structure is designed and manufactured to meet the client’s required “build-to-suit” specifications for each site, the firm’s own rigorous design and production standards, various local, state and federal regulations, and Telecommunications Industry Association (TIA®) and AASHTO standards.

On the environmental side, carbon fiber is better for reducing carbon dioxide emissions in contrast to steel. By utilizing composites--which contain recyclable materials--instead of steel in a communications tower, emissions are reduced by 70% or more over the lifespan of the tower.

In October 2020 Sojitz Corporation of Japan announced its investment in IsoTruss, Inc. through a third-party allotment of shares. The enterprise is working with Sojitz to accelerate the expansion of the telecommunication infrastructure business, primarily in Asia.

Located at 2414 West 700 South, #100, in Springville, Utah, the 6,389 sq. foot office flex space and manufacturing facility houses IsoTruss® carbon fiber cell tower manufacturing, Research and Development projects, and serves as the enterprise’s headquarters.

With a global portfolio of more than thirty patented and patent-pending structural and composite material designs that protect not only the configurations but also the manufacturing processes, IsoTruss, Inc., is committed to building the sustainable infrastructure of the future through innovative solutions in engineering, design, manufacturing and construction.

For more information, please visit <https://www.isotruss.com/faq> or contact info@isotruss.com.

#

IsoTruss Inc., an engineering, design, and manufacturing services provider currently produces patented IsoTruss® lattice cell towers made of composite materials that are exceedingly strong, lightweight, cost-effective, durable, corrosion-resistant, sustainable and eco-friendly. Utilizing [IsoTruss® Technologies](#), its family of patented, composite material grid structures that are twelve times stronger than steel or 1/12 its weight, depending on the design, the enterprise offers R&D, applications and solutions in telecommunications, aerospace, civil infrastructure, energy, construction, leisure, and more.

IsoTruss, Inc. | 2414 West 700 South, #100 | Springville, Utah 84663

Media please contact:

Laura Hynes-Keller | LHK Communications, LLC | 462 7th Ave. FL 6 | New York, NY 10018 USA

P: +1-212-758-8602 | E: info@lhkcommunications.com