



# SKINNY GUY CAMPERS INNOVATING NEXT-GENERATION PICKUP TRUCK CAMPER PRODUCTS WITH 3DEXPERIENCE SOLIDWORKS

Using SOLIDWORKS 3D CAD software connected to the **3D**EXPERIENCE platform in the cloud, Skinny Guy Campers has innovated a unique camper product that drops into a standard pickup truck, giving consumers more freedom to camp wherever a truck can take them without having to tow an RV.



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## **Challenge:**

Ouickly and cost-effectively develop innovative, modern, next-generation pickup truck camper products.

## Solution:

Implement cloud-based **3D**EXPERIENCE Works platform solutions.

## **Results:**

- Innovated modern pickup truck camper products
- Designed product efficiently in cloud during COVID pandemic
- Cut development and hardware/server costs
- Established cloud-based design platform to accelerate future growth and development

Jason Bontrager, founder, owner, and CEO of Skinny Guy Campers, is well-steeped in the recreational vehicle (RV) industry. Not only did Jason's grandparents, Lloyd and Bertha Bontrager, found Jayco, Inc.-manufacturer of the Jay Flight®, the top travel trailer brand in the world—on the family farm in Middlebury, Indiana, in 1968, Bontrager also worked for many years as head of product development at Jayco, where he led the company's transition from 2D to 3D design tools.

When Jayco was sold in 2016 to Thor Industries, owner of several competing RV brands, Bontrager continued to work in product development at Jayco before getting the itch to pursue future innovations in RV and camper design. Jayco's early success had been predicated on the patented cable-lift design innovation for raising "pop-up" travel trailers that had been developed by Jason's grandfather. Jason had an idea for guickly and easily installing a modern camping system—with heat, hot and cold running water, power, a cooktop, and a toilet—in the back of a standard pickup truck. His vision was that such a product would extend the reach and freedom of camping experiences while eliminating the need to tow an RV. Skinny Guy Campers was born from this innovative approach to camper design.

While at Jayco, Bontrager worked closely with Robert Miles III, engineering design and technical documentation lead at Skinny Guy Campers. He recruited Miles to join him in developing Bontrager's idea for this next-generation innovation in camper design. When he was at Jayco, Bontrager had led the company's transition in 2011 from Anvil Express® 2D design tools to the Autodesk® Inventor® 3D design package, which he and Miles had used at Jayco.

However, Miles had used SOLIDWORKS® 3D design software before joining Jayco's Starcraft subsidiary in 2012. Even though Jayco's head of operations had chosen Inventor, and both men were trained in Inventor, Bontrager continued to hear from both suppliers and Miles that they should have implemented SOLIDWORKS instead. So when the two began talking about launching Skinny Guy Campers and developing

the company's unique pickup truck camper, they chose SOLIDWORKS 3D product development solutions connected to the cloud-based **3D**EXPERIENCE® platform via Collaborative Designer for SOLIDWORKS. This enabled remote, secure access to SOLIDWORKS design data and data management tools from anywhere with a web browser-accelerating development by boosting team productivity and collaboration.

"As a startup, we needed to be both agile and lean, so we could quickly and cost-effectively develop and commercialize the Skinny Guy camper concept," Bontrager explains. "We're looking to maximize brand value and awareness, and establish our products more as pickup truck accessories and less as RVs. Using SOLIDWORKS 3D CAD connected to the **3D**EXPERIENCE platform gives us the capabilities we need to achieve our product development goals without having to make a large investment in server hardware."



"One of the reasons that I wanted our product development to be in the cloud is that we plan on eventually building and assembling products in other places, not just in the Midwest. Being on the **3D**EXPERIENCE platform, we can purchase additional apps as we need them without having to maintain

hardware and software in multiple locations. It's sort of like our product: a Skinny Guy camper lets you explore and camp wherever a pickup truck can go; **3D**EXPERIENCE SOLIDWORKS lets us design and manufacture product wherever we have web access."

— Jason Bontrager, CEO

#### **EFFICIENT DEVELOPMENT DESPITE PANDEMIC**

Little did Bontrager and Miles know that by implementing the cloud-based **3D**EXPERIENCE platform when product development began at the beginning of 2020, they would be able to keep development going while most of the world closed down due to the COVID-19 pandemic. "We initially chose SOLIDWORKS connected to the **3D**EXPERIENCE platform solution because of the ease of implementation, installation, and administrationit's as simple as downloading the app on a smart phone to get up and running-and to provide us with the flexibility to work from anywhere while avoiding substantial upfront capital investments," Miles points out.

"However, the **3D**EXPERIENCE platform really proved its value when I had to work the entire month of November from home because of the virus," Miles recalls. "We're about to enter final prototyping on our 6 1/2-foot standard truck bed model in spring 2021, and we've only been able to reach that milestone because I was able to keep working on the **3D**EXPERIENCE platform throughout the pandemic without missing a beat."

#### ADVANCING RV DESIGN VIA COMPLEX SHEET METAL PARTS

Skinny Guy Campers has heavily relied on the advanced, automated sheet metal design tools within **3D**EXPERIENCE SOLIDWORKS to develop its innovative camper-in-a-truckbed product. "The sheet metal tool set in **3D**EXPERIENCE SOLIDWORKS is awesome because of the simplicity with which we can create complex sheet metal shapes, in both flattened and bent states," Miles notes.

"I can create a boundary outline and solids, and then convert the solids into sheet metal," Miles continues. "Instead of thinking in sheet metal, I can leverage the platform's sheet metal tools, and let the computer do the heavy lifting. Similarly, when aligning holes for the 850 to 1,000 rivets in our design, I can use the automated features in SOLIDWORKS to create, space, and align all of the holes instead of facing the tedious task of making, spacing, and aligning the holes manually."

# LEAN, CLOUD-BASED APPROACH SETS STAGE FOR FUTURE GROWTH

While cloud-based **3D**EXPERIENCE SOLIDWORKS solutions have given Skinny Guy Campers the flexibility, agility, and cost controls that the startup needed to get through its initial R&D phase, the platform also provides the company with the product development foundation that it needs to support future growth and expansion. "The fact that we have access to all of the **3D**EXPERIENCE SOLIDWORKS design capabilities is very compelling and appealing," Bontrager stresses.

"It gives us the ability to develop our products, scale up as we grow, and expand into new locations," Bontrager adds. "One of the reasons that I wanted our product development to be in the cloud is that we plan on eventually building and assembling products in other places, not just in the Midwest. Being on the **3D**EXPERIENCE platform, we can purchase additional apps

# Focus on Skinny Guy Campers VAR: Computer Aided Technology (CATI), Indianapolis, IN, USA

**Headquarters:** 19974 County Road 6 Bristol, IN 46507 USA Email: jason@skinnyguycampers.com

For more information www.skinnyguycampers.com

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Americas Dassault Systèmes 175 Wyman Street Waltham, Massachusetts 02451-1223 USA Europe/Middle East/Africa Dassault Systèmes 10, rue Marcel Dassault CS 40501 78946 Vélizy-Villacoublay Cedex France Asia-Pacific Dassault Systèmes K.K. ThinkPark Tower 2-1-1 Osaki, Shinagawa-ku, Tokyo 141-6020 Japan