

# Case Study

Pregis team up with parcel shipper to eliminate damages for bike manufacturer, reduces packaging cost by 50%



Pregis packaging engineers design new, efficient pack

Taking longer to package a product before shipping it doesn't always translate to better results. That's exactly what a high-end manufacturer of bicycles, discovered.

In fact, even with spending 45 minutes to package a single carbon fiber bicycle frame, the company was experiencing a 2.3 percent damage rate and an average claim of \$998 due to cracked, broken and/or scratched frames. (The carbon fiber mountain bike frames are each valued at \$5,500.)

Not only was the company (and its shipping service), dealing with damage claims, but it was also having to absorb return shipping costs, repairs and/or loss of goods and additional shipping costs to resend the bicycle frame back to the customer. There was also the harder-to-calculate impact of customer goodwill and lifetime value loss.

With such a significant negative impact to profitability and brand image, the bicycle manufacturer and the parcel shipper, knew that it was imperative to find a new protective packaging solution that would deliver the bike frames damage free.

The shipper had an existing relationship in place with Pregis which had been formed to help customers who were having damage issues. As a result, Pregis was asked to review the bicycle manufacturer's packing operation and recommend solutions that would have a positive impact on damage, cost and labor efficiency.

## First step: analyzing the packing operation

Before a solution could be proposed, it was important to review the protective packaging materials the company was using, as well as its packing procedure and any other shipping attributes that would impact performance. Pregis performed on site evaluations of the packing facility to analyze existing situation and fully understand customer and package requirements.

Pregis observed that to pack a single bicycle frame, the company had been using 56 linear feet of paper dunnage and 29 linear feet of 3/16-inch polyethylene (PE) foam. The frame was wrapped in PE foam first, inserted into the case and paper dunnage used as void fill. Approximate packaging material cost per box was \$7, with an additional \$11.25 attributed to labor, for a total of \$18.25 per bike frame. (Hourly labor rate was \$15, pack time was 45 minutes.)

## Second step: Pregis IQ used to find a solution

Pregis turned to its IQ facility, a new 50,000 square foot innovation headquarters (IQ) designed to help solve packaging challenges. The customer-focused training, design and testing services hub worked



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with the account manager to deploy a variety of package engineering methods to find a performance-oriented, cost-effective protective packaging solution. The facility is staffed with ISTA-certified lab engineers who worked with the account manager to create alternative solutions which were then tested.

To support the test findings in the lab setting, including drop testing, the new packaging was also "field tested" by sending shipments through the shipper's ground service.

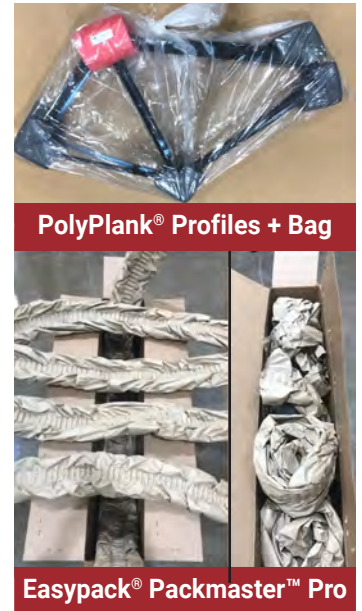
## Solution:

With positive results achieved during the qualifying and testing phase, the manufacturer was ready to move forward. After a full month of using Pregis' packaging solutions to ship products to customers, zero damages were reported. In the new packaging scenario, foam profiles surround each corner of the bike frame. The assembly is then placed in a polybag before being placed into a corrugated shipper. Paper cushioning is then used within the shipper to minimize movement and prevent damage.

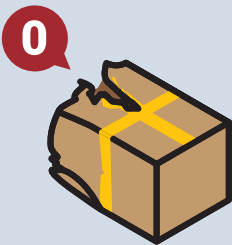
### The packaging specifics and results were:

- PolyPlank® Profiles: 4 corner foam profiles, 1 round corner foam profile
- EasyPack® Packmaster™ Pro paper machine (29 linear feet, 2-ply 45 pound paper is used for every bike frame)
- 1, 54- x 54-inch, 1 mil poly bag
- Approximate packaging cost per box: \$8
- Pack time: 5 minutes, Labor expense: \$1.25 @ \$15/hr
- Combined packaging and labor cost: \$9.25

Prior combined packaging and labor cost was **\$18.25 per pack vs. \$9.25 per pack for the new solution, reducing cost by almost 50%.**



## Results



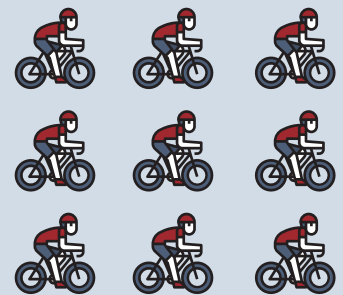
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Damages



50%

Reduction in Cost



9x

Productivity

## Proper packer training was critical to program's success

Due to the unique attributes of the bike frame and the new protective packaging solution, it was imperative that packers were properly trained to replicate the validated solution each, and every time. Pregis provided onsite training to the company's packers to make sure that happened. Additionally, the packers loved the efficiency of the new process, knowing they were able to **complete their packs in five minutes vs the 45 minutes previously required yielding a 9x productivity improvement.**

## The end result

The new protective packaging solution eliminated the damage claims. That also meant that thousands of dollars in damage impact to both the manufacturer and shipper were eliminated. Equally, as important, the customer experience was significantly improved. Instead of receiving damaged goods, customers can now experience the joy of unwrapping a pristine bike frame and head out to the trails for an adventure.

Act now! [Contact us for a free packaging analysis.](#)