



Circular Solutions

A case study from Algood Caster Innovations

525 reasons you should be using Lava™

If your caster can't take the heat – as in 525°F – you might need a new caster. Algood's Lava™ high temperature wheel is the industry leader. Here's how it came to be.



If you've ever been in a bakery plant, you know that it's an incredibly demanding environment. Dough, and the racks on which it is baked, go from room temperature to almost 500 degrees Fahrenheit then back to room temperature. In addition, those racks are used to transport the finished baked goods through warehouses, into trucks, to customer locations and then come to the plant to start the cycle all over again.

Now, think about the casters and wheels that are the key to the effectiveness and longevity of those carts. That's the challenge that Algood took on in responding to needs of customers in the bakery business.

As is so often the case, this success story began with listening carefully to the customer's concerns. We needed to create a wheel with 400-pound capacity that could sustain extreme temperature cycles, have an extended lifespan and be produced cost-effectively. In addition, to meet their customer demands, bakery operations were being pressured to increase baking temperatures and shorten production cycles.

To begin, representatives of Algood's engineering and manufacturing design teams visited the bakery location so they could observe and measure conditions. It was clear that research and testing would be the key to creating the new product.

Over a six month period the engineering and quality assurance teams developed and perfected a heat testing chamber. The challenge was to replicate oven conditions in a restricted space and create a sound testing procedure. Algood's commitment to the ISO approach as well as our familiarity with ICWM performance standards guided the project. In addition to meeting high temperature standards, the caster had to last. The goal was to create a caster that would sustain a number of temperature cycles without cracking or degradation. Each test cycle took the caster from room temperature to 475 degrees Fahrenheit for



one hour and then back to room temperature. Extended tests were carried out at 525° F for half an hour.

The R&D process began with our in-house injection molding facility. We experimented with a number of different resins but to keep costs in line opted to examine the production process instead. As a result of testing and investigation, a number of process upgrades were made including the molding temperature, cooling procedure and machinery adjustments. A number of design changes were also made.

After each refinement, products were tested until we had a caster that we were certain could meet the challenging conditions. The result was the creation of the Lava™ high temperature wheel. It can withstand temperatures of 525 degrees through intermittent use with no cracking or degradation.

Lava is an essential component for customers with bakery, paint line, wash down or kitchen operations.

Lava exemplifies our commitment to quality, innovation and customer service. It could only be created by a company like Algood with in-house engineering and R&D as well as a vertically integrated manufacturing facility that includes injection-molding, die making, metal stamping and assembly. It's no wonder that Lava is the industry leader in high temperature applications.



To see a selection of Algood's wheels and casters that are ideal for the bakery industry, go to algood-casters.com/bakery

For more information on how Algood Caster Innovations can provide solutions for your wheel and caster needs, call 1-800-254-6633 or email service@algood.com. Visit our website at www.algood.com.