Case Study: Misty West

Misty West is an engineering design consulting firm focusing on prototype research & development. The firm is comprised of Mechanical Engineers, Engineering Physicists, Electrical Engineers and Industrial Designers who all focus on solving their clients' biggest R&D challenges.

One of their clients is an innovative US coffee and tea machine manufacturer that focuses on designing and building coffee and tea brewing machines. Their latest product is a batch brewing machine using the siphon brewing method. Siphon brewing uses vapor pressure and vacuum to produce coffee. Misty West was contracted to design and manufacture the innovative batch brewer.

WHERE THE PROCESS BEGAN

The client came to Misty West with the idea to create one of the first batch brewers for vacuum extracted coffee. All they had was a proof of concept prototype, CAD and design files, a process, and a 12 week timeline. Misty West was ready to take on the challenge knowing the biggest obstacle would be the timeline.

The first thing Misty West did was to build a basic vacuum brewer to see the process in action. The goal was to test with water and see the process from start to finish before contracting a prototype manufacturer. After getting a very basic, not food safe product together, the process was tested. Misty West was able to design a product that would meet the initial challenge, controlling water and creating a vacuum seal. Since the method was finalized it was then time to move from a system prototype to a food-safe product.

FINDING A SUPPLIER

Misty West began reaching out to local prototype sheet metal and prototype machining suppliers for the parts needed. All the local vendors had similar lead times of three to six months for the parts. Misty West then began contacting their overseas vendors. Those suppliers were able to meet the tight manufacturing deadline, but shipping would be a challenge. The chance of shipping having an issue was too risky with such a tight deadline.

When it seemed the deadline was going to be too challenging one of the engineers recommended RAPID. Angela May, Mechanical Design Engineer & Lead on the project, reached out to RAPID.

THE RAPID EXPERIENCE

RAPID was able to accommodate this tight deadline and manufacture both the prototype sheet metal and prototype machined parts in-house.

With such a tight deadline and very specific design features May worked directly with the engineers and sales team at RAPID. This allowed for everyone to be on the same page and alleviate any potential communication challenges. Within hours of receiving the CAD files RAPID was able to quote. Within days of confirming the order the parts shipped.

RACE TO THE FINISH LINE

Once all the parts arrived in Canada, May had to inspect all the parts acting as an extension of quality control. During this step May discovered a part was missing. She immediately contacted RAPID. RAPID's team knew that this missing part needed to be manufactured and sent to Misty West immediately or the entire project would not meet deadline. Within 48 hours the missing part was manufactured, shipped, and in Canada.

When everything was accounted for, May and the team assembled the final prototype. It all came together. The Misty West team had one final challenge; meeting with their client to see if the coffee from the new prototype was up to their standards. The coffee passed the test.

TRADESHOW PREMIERE

After all the testing was complete the final prototype was shipped to Atlanta for its tradeshow debut.

RAPID was instrumental in getting this product to launch. With such a tight timeline to design, manufacture, test, and ship it really displays how RAPID's sense of urgency and focus on prototypes can help make the journey to product launch a success.

Angela May stated, "I am really pleased with how hard you worked. You were very accommodating in making the product launch happen. RAPID was key in making us meet this deadline."

To learn more about Misty West and their services visit http://www.mistywest.com/.