Still Flying:

How new materials, development strategies and production approaches have kept "the Little Red Wagon" company relevant.

SPEC CHECK > FASTENERS

Southco’s DZUS® Panex® fasteners provide better ergonomics for repeat access applications. See page > 40

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Truly innovative NPD is not a fad or a Six Sigma-like trend; it’s risky, messy and a bit unpredictable, and it doesn’t necessarily follow a straight line.
Rollin' With The Changes

How new strategies have fed design innovation and helped Radio Flyer expand its offerings.

by Jeff Reinke

In 1917 Italian immigrant and cabinetmaker Antonio Pasin rolled out his Liberty Coaster wagon – named after the monument that welcomed his dreams and aspirations when first entering this country. His first offering to the American public was fueled by a desire to provide every boy and every girl with something he could never afford to have as a child. The design and materials – wood with metal wheels – were simple, high-quality and a reflection of what the consumer wanted.

Fast forward to the recent Cloud 9 prototype wagon with an iPod connection, padded seats, air-filled tires with ball bearings, a speedometer and lightweight polycarbonate construction. The prototype shows that the same principles still apply. In a market seemingly dominated by products which focus on electronic-based interaction, Radio Flyer has remained relevant and successful by expanding their offerings, evolving to engage families in what they describe as “active play that inspires adventure and imagination.” While the dedication to innovation, quality and meeting consumer demand hasn’t changed, this is still not the Little Red Wagon that you used to know.

Process Fuels Innovation

In many cases it’s an emotional connection that people make when choosing our products,” offers Tom Schlegel, vice president of product development at Radio Flyer. “Sometimes it’s based on the heritage of the company or past experience. Regardless, that dynamic serves as a guide in many of our decisions regarding material use and production methodology.”

Although the exact SOPs may not be in place, in speaking with the design team at Radio Flyer the principles of DFMA (design for manufacture and assembly) seem to play a prominent role in the product development process, as it has from the beginning. With affordability being a prominent driver of Pasin’s early offerings, he was a pioneer in implementing metal stamping production and an assembly line – approaches that he learned from Ford. This process played a key role in the 1927 launch of the first steel wagon – the Radio Flyer. Pasin named it after his two primary fascinations of the time – the radio and flight.

Similarly, new product development at Radio Flyer uses the latest in rapid prototyping technology to generate working models that can be shown to focus groups, as well as computerized models that allow for analyzing durability and simulating usage.

Additionally, thanks in part to the constant feedback obtained from parents and children, key aspects that are addressed during the design process are safety, durability and the ability to move, fold or collapse different parts in meeting a variety of needs. This has led to the use of more plastics that allow for greater design flexibility in meeting transport, storage, entertainment or other demands from the same product.

An example is the company’s new My First Scooter design. “It looks and feels safer,” states Mark Johnson, product development manager. “We used blow-molded plastic parts instead of form molded parts, because they were tested to be stronger. Radio Flyer used to just mean metal wagons, but we’re always tweaking what it actually means to be a Radio Flyer.”

“This approach has impacted some time-to-market challenges, as building this tooling takes longer and initial bugs have to be worked through quickly in meeting the benchmark for quality that we’ve established,” adds Katie Powers, industrial designer.

Not surprisingly, ensuring this continued level of quality means just-
tifying a premium price tag. “We’ve learned that quality is key for us. It overcomes all price objections. That’s why we focus on using better materials and are constantly refining the design. It also dictates the direction that we take in developing new categories of products,” states Schlegel.

Schlegel and his team feel that the implementation of a disciplined process based very heavily on consumer feedback and extensive testing, as well as talented engineers, have allowed the company to make the right decisions in evolving their offerings, and in specifying design and production methodologies. This has lead to the implementation of more industrial designers and corresponding production equipment that can meet a wide range of demands. Simple options like the incorporation of cup holders, more comfortable seat backs or greater protection from the sun or wind for those using their wagons have been vital to next generation product development and overall company success."

**Innovation Fuels Development**

Although Radio Flyer’s offerings are now quite extensive, as Schlegel explains, this was not done haphazardly. “We considered going into strollers,” he states, “but when we looked at the product, we couldn’t see how to innovate the existing design and make it dramatically better. With a lot of our product development we start with a simple open-ended statement, ‘Blank in a wagon, or scooter or tricycle.’ Once we fill that blank, we start working on the design.” A prime example was the introduction of a spring horse product line that has been Radio Flyer’s leading seller for the last three years.

The company’s diversification offers some interesting perspective on timelines and product life spans as well. With development schedules from 12 to 18 months, Radio Flyer is able spend a lot of time with their end-user. It pays off, because while typical lifecycles are three to five years, the Little Red Wagon has gone virtually unchanged for over 70 years.

While inspiration comes primarily from the mothers and children they speak with, the company also spends a fair amount of time looking at automotive concept vehicles. Studying the lines and material use offers ideas for future designs as well as insight on ways of keeping traditional products in pace with changing consumer desires. This goes back to the emotional connection that the company looks to make and in developing what the design team refers to as Blue Sky features or luxury items that add greater value and function to the design. These approaches also keep Radio Flyer products relevant and interesting to a customer base with constantly evolving preferences and opinions.

So while material choices and production methods continue to evolve, the key mission driving Radio Flyer has not. Whether it’s a wooden box on metal wheels or cushioned seats and an iPod connection, the most relevant factor impacting the success of these products can still be found in Antonio Pasin’s founding desire – to make children happy.