

SUPERFEET STEPS UP SPEED TO MARKET AND EXPANDS PRODUCT FOOTPRINT WITH JABIL'S DIGITAL PROTOTYPING AND 3D PRINTING PROWESS



Case Study

SUPERfeet®

Company Superfeet
Industry Health, Wellness, and Fitness
Country USA
Employees 51-200
Websites www.superfeet.com



CHALLENGES:

- Determining best way to elevate 40-year-old brand by taking advantage of game-changing 3D printing technology
- Special 3D printing expertise needed to clear early obstacles

SOLUTION:

- Radius took advantage of digital prototyping capabilities to produce 40 product prototypes in four months
- Jabil offered specialized knowledge in traditional and additive manufacturing to streamline introduction of 3D printing while improving warehousing and supply chain

BENEFITS:

- Time to market was cut by more than half while devising a roadmap for improving production accuracy and efficiency
- Jabil and Radius enabled Superfeet to customize in ways not possible previously, providing a fast path to delivering an even better product
- Superfeet now can use 3D printing to produce custom insoles with a high degree of replication at a fraction of the cost of other methods

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Superfeet is the leading maker of over-the-counter insoles for the active lifestyle and outdoor markets. Since its founding in 1977, the Ferndale, Wash.-based company has steadily grown to set the standard in foot support by changing how footwear fits, feels and performs. Based on the principles of podiatric medicine, Superfeet products are designed to alleviate a wide range of foot health-related issues.

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The distinct Superfeet shape comes from four decades of unrelenting focus on providing support and comfort for the foot. According to Eric Hayes, vice president of marketing and product for Superfeet, the company’s mission is to develop leading-edge products that make life-changing differences for people every day and every step of the way. “We like to say we change people’s lives every day, and we truly do,” he says. “If you’ve ever experienced foot pain, it can be debilitating. First and foremost, we give people their lives back.”

The 40-year-old company continually applies its extensive “foot shape” knowledge to produce custom insoles that deliver optimum performance. Superfeet also constantly seeks innovative technology to deliver its products in a more efficient, effective and personalized package. “We know technology is changing fast and 3D printing seemed like an unbelievable opportunity to provide the Superfeet shape in a completely customized and personalized manner,” explains Hayes. “But we didn’t know anything about 3D printing, so we needed a great partner to help us while letting the Superfeet team focus on what we do best.”

Fueling an Innovation Infusion

It was clear that 3D printing had the potential to transform Superfeet’s manufacturing landscape and quicken the pace of product innovation. “We felt that 3D printing would enable us to customize our products in ways we’d never been able to before,” notes Hayes. “Being able to localize manufacturing also would completely upend our supply chain and speed the delivery of highly personalized products.”

The key was figuring out the best path forward. “There’s never a shortage of obstacles when dealing with something new,” Hayes adds. “3D printing can be slow and expensive. We needed to figure out how to reduce the roadblocks and take advantage of the great potential.” To that end, John Rauvola, president of Superfeet, leveraged a personal relationship with Bob Harmon, Jabil’s vice president of Global Business Units, to get the process moving. A visit to Jabil’s Blue Sky Innovation Center in San Jose, Calif., was the next logical step. There, Superfeet saw the latest technologies and services in action and learned how digital transformations were creating new

business opportunities for Jabil customers around the world.

“A visit to Blue Sky is like seeing the future,” says Hayes. “It’s one of those environments where you know an unbelievable solution is around every corner and it puts you in this creative state where you step back and take a fresh look at the problems you’re trying to solve.” While at Blue Sky, Superfeet toured Jabil’s automation lab, featuring the latest 3D printing technologies, as well as an advanced Digital Prototyping Lab (DPL). This leading-edge facility is run by Radius, an innovation and development consulting firm acquired by Jabil in 2012. DPL services include complete user



insight, design, build, analysis and testing—all under one roof, which was very appealing to Superfeet. “The power of the Blue Sky Center is seeing innovative technologies in action,” says Hayes. “What makes it so impressive is they show you what’s been done instead of just talking about it.”

Following a standard RFP process, the collective Radius and Superfeet team hit the ground running. Serving as a product ideation and innovation hub, Radius brought together experts in digital prototyping and 3D printing as well as additive and traditional manufacturing. “What’s so cool

about Radius is how quickly they gather all the experts around the table to focus on what needs to be accomplished,” says Hayes. “Superfeet was stuck in ideation, but Radius had an incredibly organized, creative and well-managed approach to getting us beyond that quickly and on our way to having a solution on time and on budget.”

Partners in Product Prototyping

Together, Radius, Jabil and Superfeet devised a way to infuse innovation into the overall process to ensure the best possible experience for the Superfeet shape. The Radius-led team reviewed Superfeet’s long-term product plans to determine when and where it made the most sense to introduce 3D printing. Radius presented different options, offered suggestions on materials and even advised Superfeet on 3D printer models. “Radius laid out all the options in terms of time, speed and cost, which made it easier to decide on what to do in the short term to meet longer-range business goals,” Hayes recalls. “Their expertise proved invaluable in helping us focus the initial project scope, so we could move quickly into product prototyping.”

A fundamental part of the Radius approach is an Accelerated Product Introduction (API) process whereby a team of experts, combined with state-of-the-art equipment, assists customers in quickly ideating, building and testing product concepts. For Superfeet, this methodology enabled readily eliminating certain ideas in favor of others that had the potential of delivering a

bigger impact. “On our own, we could have easily gotten hung up and spun our wheels, but Radius guided us through the prototyping process,” Hayes says. “They delivered prototypes on a regular basis to test new materials and properties. Radius even set up a duplicate 3D printer in our office so we could print prototypes directly, which was fantastic.”

Moreover, Jabil and Radius helped eliminate 99 percent of the 3D printing solutions on the market

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to focus on the one percent that best fit Superfeet’s needs. In doing so, time to market was reduced by more than half while a roadmap emerged for improving the entire production process. Over a four-month period, Superfeet and Radius powered through more than 40 product prototypes to fine-tune shape and materials. The final solution

blended the best of 3D printing with traditional manufacturing. The result: a faster, more accurate way to give customers ultimate control in creating their own highly personalized products.

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On a Faster Path to the Future

With Jabil and Radius, Superfeet is well on its way to incorporating 3D printing into its custom insole fabrication process with an extremely high degree of replication and efficiency. “With 3D printing, we can take all the guesswork out of the equation,” Hayes says. “In the future, customers will be able to walk into any Superfeet retailer and get the same results—a perfect product made just for them.”

Thanks to a close working partnership, Superfeet also received additional recommendations from Jabil and Radius that fell outside the project's scope yet

demonstrated a strong customer commitment. For example, the team offered advice on how to refine existing manufacturing techniques and shared ideas for improving Superfeet's warehousing and supply chain operations. Additionally, an introduction to a new vendor led to significant savings in packaging, which then were reinvested in other parts of the business.

Along the way, Jabil and Radius became valued extensions of the Superfeet organization. “Collaboration with Jabil is seamless,” adds Hayes. “I really can't tell you where one team begins and the other ends as we have one cohesive group working in the spirit of exciting problem solving.” As a 100-percent employee-owned company, Superfeet's strong cultural alignment with Jabil is credited for completing a successful outcome in record time.

“Superfeet employees bring a different energy to work each day, which motivates us to create better products,” says Hayes. “Both Jabil and Radius share that energy and drive to reach more people with our life-changing solutions.” As a result, Superfeet is on a fast path to becoming the first custom insole maker to fully embrace 3D printing. In the future, the company plans to set up 3D printers inside retailers, enabling consumers to get their feet scanned and quickly receive products perfectly matched to their anatomy.

By embracing revolutionary 3D printing technology, Superfeet can deliver on its 40-year-old brand promise in new and exciting ways.

“The partnership with Jabil came down to being able to do it all—or not,” concludes Hayes. “With Jabil and Radius, we're stepping up the use of 3D printing to manufacture insoles more accurately and more efficiently to ultimately deliver a better product.”

About Jabil

Jabil is a digital product solutions company providing comprehensive electronics design, production and product management services to global electronics and technology companies. Offering complete product supply chain management from facilities in 27 countries, Jabil provides comprehensive, custom solutions to customers in a broad range of industries. Nypro, a Jabil company, specializes in medical devices, with a global footprint of ISO 13485 and FDA registered facilities, manufacturing many of the most recognized medical brands for major healthcare and wellness companies. Jabil common stock is traded on the NYSE under the symbol, “JBL”. Further information is available on Jabil's website: jabil.com.