

nuclear power industry

the challenge

Newton Research Labs develops and manufactures precision, non-contact inspection and measurement solutions based on proven machine vision technology and innovative software applications. Its powerful, easy-to-use and industrial rugged systems serve a wide range of industries with camera-based and robotics products, many of which need high-quality enclosures to protect the valuable components inside each system.

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Gary Anderson
Newton Research Labs

Newton engineers knew they had a problem when enclosure units that they had contracted to be manufactured from bent sheet metal at a local shop proved to be of poor quality and fit for their products. The engineers began to search for a supplier that could provide them with a customized, high-quality enclosure that had a crisp, professional appearance. This supplier would need to fabricate and finish an enclosure and chassis for them as

well as supply a 3D model of a standard 1U enclosure that they could modify to house three newly developed products for the nuclear power industry.


the solution

Newton Research Labs turned to its long-time partner for modified enclosures: Buckeye Shapeform. Since 2004, Newton Research Labs has worked with Buckeye Shapeform to create custom enclosures for various products. In the past, their engineers worked together to modify Build-a-Box series enclosures and E4 Series tube extrusion enclosures. The engineers at Newton knew that Buckeye's one-on-one attention throughout the years would contribute to a successful partnership and professional quality enclosures for its nuclear industry products.

From the beginning of the project, the engineers at Buckeye Shapeform and Newton Research Labs worked together to develop a custom enclosure solution that could be manufactured to fit the needs of three recently developed nuclear industry products: the NM200E PWR Core Verification System, the NM200UW Nuclear Underwater Laser Scanner and the BWR RPV Dryer Robot.

Buckeye Shapeform engineers sent 3D AutoCAD model drawings to the engineers at Newton Research Labs that allowed them to easily modify Buckeye's FC-B enclosure to fit their needs. Newton's engineers customized the FC-B enclosures to house the control components of each product. The enclosures featured modular characteristics that allowed the primary unit to be used in all three products by simply changing the front panel. The FC-B enclosure was further modified so it would attach to the metal electronics rack within a molded, high-impact airline-transportable case that formed each product's control console. When the design was finalized, Buckeye Shapeform fabricated and finished custom enclosures to exactly match the Newton engineers' specifications.

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the results

Buckeye Shapeform listened to the needs of the Newton engineers and worked side-by-side with them to create a custom enclosure solution. By working together with timely, accurate communication, the engineers at both companies successfully developed an exceptional end product while reducing costs and production time, which ultimately contributed to better overall project savings.

During the project, Buckeye Shapeform found a way to save Newton Research Labs hundreds of dollars by reviewing its inventory of existing die tools and suggesting one that had a design for punching ventilation slots that was very close to specifications of the Newton product. Newton engineers easily repositioned some electronic components inside the unit and saved on the expense of purchasing a custom-made die tool.

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The successful partnership between these two companies is a testament to their dedication to developing solutions that ultimately benefit the end user. Since their partnership began in 2004, Buckeye Shapeform and Newton Research Labs have worked side-by-side to provide their customers with professional-grade products and service.

To learn more about how Buckeye Shapeform products will work for you, visit our website at buckeyeshapeform.com, or call (614) 445-8433 or 1-877-728-0776 (toll free).



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