

test measurement & calibration industry

the challenge

In the test measurement and calibration industry, scientists depend on electronic devices to capture extensive data for various research applications. The inner components of these electronics are extremely sensitive and need to be protected by high quality enclosures to ensure accuracy in functionality as well as to extend the lifetime of the equipment. A compromised enclosure can mean false results, which can devastate the careful preparation and execution of an experiment.

For more than 30 years, TEGAM, Inc. has specialized in the design, manufacturing and support of a wide variety of test measurement and calibration instruments. The company is internationally recognized for its high quality RF power sensor calibration systems, RF attenuation measurement systems, resistance standards, ratio standards and ohmmeters.

Buckeye Shapeform consistently works to meet our ever-changing demands of expediting orders as needed to meet our end customers' needs.

**Dee Ramsey
TEGAM, Inc.**

In addition, they manufacture product lines acquired from Syntel Incorporated, Keithley Instruments, Eaton Corporation, Electro-Scientific Industries, Tektronix, Weinschel Corporation, System IIA, Analite Inc., Pragmatic Instruments and PPM Instruments. Most recently, TEGAM, Inc. expanded its product line by introducing a PXI amplifier and an RF power meter.

TEGAM, Inc. realized it needed a vendor that could provide professional quality, custom enclosures and supply these enclosures on demand with dependable on time delivery.

the solution

It was 15 years ago when TEGAM, Inc. sought out a vendor to create low-cost, high quality enclosures to protect the electronics of their test measurement and calibration instruments. They found Buckeye Shapeform, a full-service enclosure manufacturer in Columbus, Ohio, and since then Buckeye Shapeform has fabricated and finished custom enclosures for TEGAM, Inc.'s test measurement and calibration products.

Over the years, Buckeye Shapeform's engineers have customized each enclosure to fit TEGAM, Inc.'s unique product specifications. They have fabricated each enclosure design with special sizing, modified front and rear panels, hole punching, PEM fasteners and other hardware additions, support brackets and finishing including custom colors. To complete each enclosure, Buckeye Shapeform has manufactured and applied custom-made standard and imperial knobs.



TEGAM, Inc. first asked Buckeye Shapeform to modify its XPAND-A® enclosures to create the DT72B AC Ratio Standard, an inductive voltage divider that can be integrated into systems for calibration of voltage dividers, transformer standards, synchro/resolver standards, transformers, calibrators, ammeters and voltmeters.

Then in 1997, Buckeye Shapeform customized its DSC Series enclosures to help TEGAM, Inc. create the 1750 High Speed Microohmmeter. This instrument has been used to control the silver plating thickness of copper wire in real-time as well as to continuously measure wire gauge. It also can be used to measure inductive test samples by connecting a capacitor.



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the solution (cont.)

Most recently, TEGAM, Inc. worked with Buckeye Shapeform to create a modified BMX enclosure for the 1830A RF Thermistor Power Meter. This model in combination with a thermistor power sensor (also called a thermistor mount) can accurately measure the SWR of a 50 MHz reference. By using this method, the 1830A RF Thermistor Power Meter allows its user to change the value of the thermistor mount's terminating resistance.

Buckeye Shapeform began each project by providing TEGAM, Inc. with AutoCAD drawings and 3D modeling. Once the design was approved, a prototype was constructed. Buckeye Shapeform sometimes built this prototype of alternate materials without finishing to lower the project's cost in this initial stage while allowing TEGAM, Inc. to verify the qualities of the custom enclosure.



When the prototype was approved, the drawings were updated on both ends for cross-referencing. Then production went into effect

to provide TEGAM, Inc. customers with test measurement and calibration instruments protected by professional quality Buckeye Shapeform enclosures.

the results

TEGAM, Inc. has chosen to work with Buckeye Shapeform for more than 15 years because of Buckeye's dedication to high quality products, on-time delivery and superior customer service.

"Buckeye Shapeform consistently works to meet our ever-changing demands of expediting orders as needed to meet our end customers' needs," Dee Ramsey senior buyer at TEGAM, Inc. said.

TEGAM, Inc. will continue to work with Buckeye Shapeform to create custom enclosures for its test measurement and calibration instruments because Buckeye Shapeform has constantly shown its commitment to finding ways to lower costs while increasing the quality and functionality of each instrument's enclosure.



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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