



serving the needs of  
military and aerospace  
industry leaders

## **Performance, precision, and efficiency**

For many military and aerospace applications, mere millimeters can determine the success of critical missions. Military and aerospace manufacturing industry leaders know that highly-specialized equipment and products require a special combination of precision, performance, and efficiency within those all-important millimeters. Rarely do such applications allow any room for error. Fortunately, Buckeye Shapeform has the technology and expertise to ensure that precision and performance of mission-critical applications are maintained, all while enhancing the efficiencies necessary to allow military and aerospace industry leaders to remain competitive in an economic environment nearly as harsh as that encountered by the finished product.

As a leader in the design and creation of products and enclosures for military and aerospace applications, Buckeye Shapeform uses its deep draw technology and refined enclosure creation processes to ensure product precision, performance, and efficiency even when employed in harsh, and often hostile, environments. And to help you meet the demand for products that are virtually flawless every time, that are strong and durable, and that are cost-effective to create, Buckeye Shapeform delivers per-spec products on time, every time.

**Mission-critical parts and equipment must match the conditions in which they'll be employed, where little to no margin for error exists. Buckeye Shapeform's Deep Draw Technology uses a controlled movement process delivering a refined, highly calibrated product with tolerances in the thousandths.**

## **Performance**

### **Reliable integrity**

Your products are expected to achieve and maintain unmatched levels of integrity and complexity. Some products simply cannot afford to fail. Ever. And in today's dynamic, highly-technical military and aerospace environment, traditional manufacturing processes such as impact and spinning are quickly becoming obsolete. On the other hand, Buckeye Shapeform's Deep Draw Technology makes us capable of creating products that can be relied upon to work as designed every time.



## **Dependability**

Buckeye Shapeform deep-drawn products

- Undergo innovative integrity-testing procedures
- Are virtually flawless with no seams or welds
- Meet and often surpass the performance required by military and aerospace technology demands.

Buckeye Shapeform's use of aluminum in the deep draw process provides

- A uniform grain structure
- Strong, yet ductile products
- Vibration absorption to protect sensitive electronics and other technology.
- Higher-quality and less brittle parts than impact-produced parts

In addition to aluminum, the Buckeye Shapeform Deep Draw process works with

- Copper
- Brass
- Mild (cold rolled) steel
- Precious metals
- Any ductile material

You can also depend on Buckeye Shapeform to create enclosures for military and aerospace/aviation applications. Our expertise allows us to provide either commercial off-the-shelf enclosures or to create custom enclosures that are just as complex as the application's requirements and as dependable as our customer service to you.

## **Precision**

### **Tight tolerances**

Mission-critical parts and equipment must match the conditions in which they'll be employed, where little to no margin for error exists. Buckeye Shapeform's Deep Draw Technology uses a controlled movement process delivering a refined, highly calibrated product with tolerances in the thousandths. For example, Buckeye supplies the military with a missile casing which features a 7-inch interior diameter, with a tolerance of just +/- .003 inches. This kind of accuracy is attainable even on larger parts up to 84" in length and 10" in diameter.

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## Precision (cont.)

### Accurate fabrication

The very purpose of Buckeye's deep-draw process is precision. Traditional processes simply cannot provide this level of precision. Through a virtually flawless manufacturing process, our deep draw technology provides:

- Complex cylindrical shells, tubes and other shapes of many sizes and close tolerances
- High-volume, high-speed manufacturing
- Multiple wall thicknesses
- Multiple diameters
- Reliable and accurate product performance in the field

Our enclosure products are no exception to tight precision requirements. Sensitive electronics and other components require a rugged, durable, yet aesthetically-pleasing housing. To match your precise needs Buckeye Shapeform can create enclosures of any shape and size with any number of features.

**As a leader in the design and creation of products and enclosures for military and aerospace applications, Buckeye Shapeform uses its deep draw technology and refined enclosure creation processes to ensure product precision, performance, and efficiency even when employed in harsh, and often hostile, environments.**

## Efficiency

### Reliable results

Unlike its less-sophisticated counterparts, Buckeye Shapeform's Deep Draw Technology can consistently deliver reliable results. The Buckeye Shapeform deep draw process reduces the use of raw materials and results in seamless, one piece parts with multiple wall thicknesses and diameters created through minimal operations. This eliminates the need to spend time and money on assembling separate product components (which is necessary with conventional processes). We also pride ourselves on delivering enclosures per spec and on time, every time.



### **Measurable savings**

Buckeye Shapeform's Deep Draw process provides many benefits, including

- A sealable finish on products of 63 micro-inches or less
- Elimination of secondary operations by allowing for the direct application of sealing gaskets during final assembly
- Use of less raw materials than product specifications require
- Lower material costs
- Lower product weight

And, our ability to complete all enclosure finishing in-house reduces the time and resources needed when multiple shops are involved.

### **Let us help you**

In your efforts to provide the best-performing, most precise and most cost-effective products for military and aerospace applications, Buckeye Shapeform is in a unique position to assist. It is our business to help you. What sets Buckeye Shapeform apart from our competitors is the level of technical support, customization and value-added services that we provide in-house. Whether you're up against an impossible deadline, or you're simply stretched for resources, you'll find that Buckeye goes the extra mile in ways that our competitors simply can't... or won't.

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To learn more about how Buckeye Shapeform products will work for you, visit our Web site at **[buckeyeshapeform.com](http://buckeyeshapeform.com)**, or call (614) 445-8433 or 1-877-728-0776 (toll free).