

## CASE STUDY:

### Technology and manufacturing company outsources RF welding contract manufacturing for military helmet pads

#### THE CLIENT

SKYDEX® Technologies, Inc. ([www.skydex.com](http://www.skydex.com)), a privately held company located in Centennial, Colo., is a leading supplier to worldwide military, law enforcement, commercial and athletic markets of helmet impact technology that mitigates physical risk.

#### THE CHALLENGE

One of SKYDEX's largest products is its ballistic helmet pad placed inside the helmets of military personnel to absorb impact and increase comfort. Fabricating helmet pads involves the radio frequency welding of a loop fabric layer around several layers of material, including a thermoplastic urethane impact-absorbing layer, a urethane comfort layer and a moisture-wicking microfiber outer layer. After several years with another contract manufacturer, SKYDEX sought out a new partner to provide optimized production cycle times, quality manufacturing and improved customer service.

#### THE GENESIS PLASTICS WELDING SOLUTION

SKYDEX researched several other contract manufacturers before selecting Genesis based on the company's proven technical expertise and customer service. As a trusted innovator in the plastics welding industry, Genesis is led by experienced business and manufacturing professionals dedicated to providing only the best quality product.

Genesis — along with their die-cutting and assembly operations — now welds the entire set of helmet pads using radio frequency heat sealing. Unique to the plastics welding industry, Genesis' proprietary heat sealing technology allows RF welding of polyethylene, polypropylene and nearly any low-loss polymer in film, foam and fabric layers. The RF-welded "rip-stop" seams are rip resistant and experience no thread deterioration, providing for a longer-lasting product.

SKYDEX relies on Genesis' attention to quality, knowing that quality control supervisors ensure every employee is thoroughly trained as a front-line inspector in each phase of manufacturing. This ensures that SKYDEX receives quality care from the time a prototype is engineered to the time the finished product is shipped. Genesis also provides the added benefit of storage in their warehouse space until SKYDEX requests shipment.

#### THE RESULTS

Thanks in part to Genesis' technology, the SKYDEX ballistic helmet pads provide superior protection and durability over a wide range of temperatures. The pads will not absorb water or sweat, are washable and quick to dry, and feature a contoured shape for maximum stability and comfort.

*"We've outsourced our plastics welding needs to Genesis for more than 11 years. Genesis' commitment to customer service and quality has continued to earn our business year after year and project after project."*

— Dave Wampler,  
SKYDEX operations manager

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#### CLIENT

Colorado-based, privately held technology company serving the military, commercial and athletic markets

#### CHALLENGE

Sought an expert contract manufacturer to provide RF welding of military ballistic helmet pads

#### SOLUTION

- Radiofrequency welding of various thermoplastics
- Total project management
- Adherence to regulatory compliance and quality control standards
- Superior technical expertise
- Expert customer service

#### RESULTS

- Superior, long-lasting product
- Increased cost efficiencies
- High-quality partner with on-time delivery

