



# Compounding Lines

Your Global Compounder of Custom Engineered Thermoplastics

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## Security and Accessibility

**Modular weapon mounting system provides fast accessibility & increased security for consumers, law enforcement, and military**



For many rifle owners, gun security has long been limited to options offering relatively low levels of protection or accessibility, such as locking cables or sheet metal lockers. According to Nathan Wasankari, Co-Founder and President of **Raptor Products Inc.**, many typical mobile law enforcement gun mounts have been considered equally ineffective, often being used instead to hold soda bottles. *"There is a definite dissatisfaction with the ability of most mounts to adequately hold modern rifles with tactical optics,"* he explained.

From observations like these, Wasankari invented a system that allows users to instantly snap almost any rifle securely into a mounting platform and pull it out just as quickly. The "open

air" solution provides continuous visibility in nearly any room or vehicle, and can be locked tight with the press of a button to safely secure weapons against unauthorized use.

The heart of the system—adaptable to nearly any rifle—is the palm-sized Raptor Picatinny Mount, designed to secure on to the Picatinny rail accessory found on nearly all modern rifles. It opens readily to "grip" the weapon when it is pushed firmly into it, and releases it with a "click" when pushed firmly forward. According to Wasankari, the Raptor Picatinny Mount is made from an **RTP Company** Nylon Long Glass Fiber Compound that delivers a long list of vital properties that he and his customers demanded, such as

ruggedness, yield strength, dimensional stability, wearability, durability, impact resistance, fatigue strength, UV resistance, salt resistance, and wide ranging temperature resistance.

*"The key to moving forward with the design was getting the material exactly right, and our tool manufacturer recommended **RTP Company**,"* said Wasankari. *"They not only had high quality products and the ability and willingness to adjust their compounds to meet our needs, but their products are also made in America, which is very important to our customers—especially the military markets we wanted to ultimately get into."*

cont.



Military 6x6 Roof Mounted M4

## Raptor Products, Inc. Weapon Mounting System

**Market:** Military/Aerospace  
**Compound:** Very Long Fiber (VLF)  
Reinforced Nylon

cont.

Wasankari notes that when the product is presented at trade shows or other venues, the response from first time viewers is most often extremely positive. *"This is such a different way of solving this problem that when someone sees it for the first time at a trade show, they usually respond with 2-3 seconds of stunned silence, then a comment such as, 'Wow, that is the coolest gun product I've seen so far. What we've been doing for storage and access has not worked for a while—I'm glad somebody's finally done something different and gotten it right!'"* said Wasankari.

Although Wasankari notes that the product is still in its early "awareness building" stages, the Picatinny Mount is already being used domestically by the U.S. Army, the U.S. Air Force, military contractors and police authorities, as well as by individual users throughout the country. Future markets in Wasankari's sights include international law enforcement and military agencies.

However, Wasankari notes that, regardless of this early success, on occasion, a potential user will express doubt that simple plastic could ever hold their rifle securely in place and protect it adequately. That's when he breaks out the "big guns."

*"I explain that this is not just the plastic you stir your noodles with—it's an engineered plastic designed to perform in snow and ice at -40 °F and sweltering deserts at 150 °F; on land, sea, air and*

*underwater; that it resists sand, sea air, and relentless sun; that it can even ride on off-road vehicles, ATVs, jet-skis, Humvees and snow mobiles—basically protecting any gun, anywhere, in any circumstance,"* he explained. *"The design and the **RTP Company** material enabled us to exceed the requirements for almost any application, and by the time I show how the locking mount can resist 1,000 - 1,200 pounds of force, they're already sold."*



Raptor Picatinny Mount on Roll Bar

Raptor Holster on K9 Vest



# The Means To The Ends

## Thermoplastic clamp with overmolded tips delivers better safety

Anywhere there are utility line workers repairing high voltage power lines, you're likely to see insulated safety blankets. And anywhere you see insulated safety blankets, you'll see plastic clamps—or "diaper pins" in the informal industry vernacular—holding them in place.

Despite the silly nickname, there's nothing silly about the functionality of these relatively simple and ubiquitous parts. The blankets that they are meant to tightly secure are often the only thing separating a lineman from thousands of volts of potentially deadly electricity.

But Jim Rauckman, an industry veteran, saw a serious issue in the product's status quo. The hard plastic clamps called for little rubber "booties" to be slipped on at the ends where they gripped the blanket. However, these booties were notorious for falling off or splitting due to UV exposure, potentially reducing the effectiveness of the clamp. **Rauckman Utility Products, Inc.**

had already developed dozens of innovative products for the utility industry. He was confident that his team could provide a better alternative.

According to Rauckman, every one of the injection molded thermoplastic products in the company's large and growing product line uses an **RTP Company** material. So he knew exactly who to call for help in getting his concept into development.

*"What do we like about **RTP Company**? It's simple—we explain the product idea and the characteristics we're looking for and they take it and run with it, and come back with the custom compounded samples that deliver just what we're looking for,"* he said. *"They're great partners."* In fact, he notes, over the years **RTP Company** has helped

actualize some of Rauckman's most innovative products. For example, one of the company's signature wildlife protection products, the ZAPshield®, picks up an electrical charge from the pole and gives squirrels and other small animals a tiny shock to train them to stay away from the dangerous power lines. It's so innovative that it's patented, including the product's ability to pick up and apply the electrical charge. The charge is delivered thanks to the **RTP Company** custom compounded conductive thermoplastic material specified in the design.

*"I find that there's no shortage of suppliers who claim that they can make you whatever you want, but then when you see their quote it becomes clear that they don't really want to do it, and they'll just try to steer you back to something they have on the shelf,"* noted Rauckman. *"Not **RTP Company**—they are true custom compounders."*

cont.



# "They are true custom compounders."

- Jim Rauckman  
Founder, Rauckman  
Utility Products, Inc.

cont.

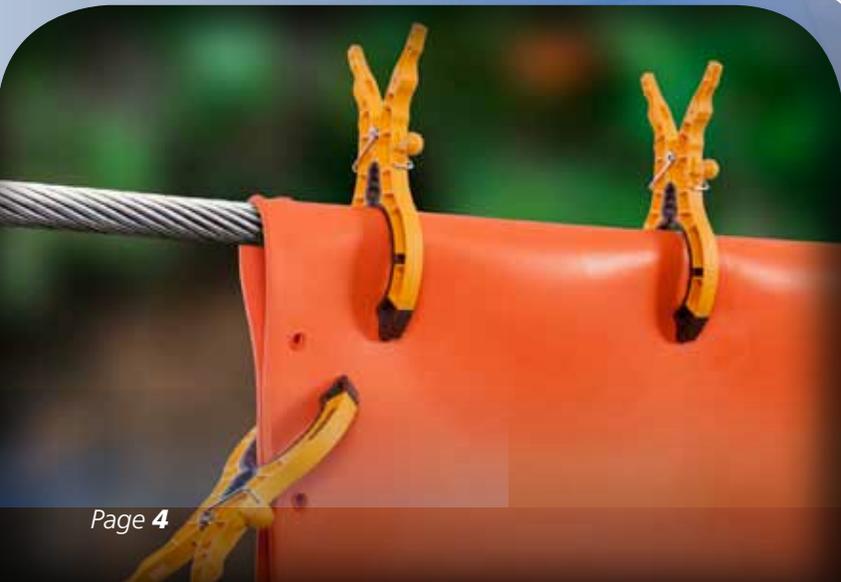
In his vision for the new clamp, Rauckman sought a number of high performance properties. He wanted to ensure that the rubbery portion of the clamp would provide superior grip and could never fall off like the current booties did. In addition, he wanted the rubbery ends to match the durometer of the blankets used in the industry so they would not cause indentation and wear, delivering even greater value to lineworkers. And, for the hard plastic portion, he wanted to provide longer-lasting performance than incumbent clamps, which were subject to degradation and failure due to cold weather.

True to form, **RTP Company** took all of these criteria and compounded a long fiber Nylon and a soft Thermoplastic Elastomer optimized for an overmolding process that would help create

a complete one-piece blanket clamp that is revolutionary in the industry.

Overmolding combines disparate materials right in the molding process, forming a strong chemical bond and eliminating the need for adhesives or fasteners in all types of components. Also key was the specifying of long fiber, which can provide greater durability than chopped fiber Nylon.

*"In addition to optimizing the material, **RTP Company** also worked with our molder to get the flow patterns just right," explained Rauckman. "With this type of value-added help and high quality products, it's no wonder that **RTP Company** has been our go-to thermoplastics supplier for more than 15 years."*



**Rauckman  
Utility Products, Inc.  
Blanket Clamp**

**Market:** Energy  
**Compound:** Colored, Long Glass  
Fiber Compound with UV resistance

# Fan Club

## Mexico-based manufacturer leapfrogs competition by jumping from metals to thermoplastics

Mexico City entrepreneur Javier Robles started **Compañía Automotriz De Ventiladores S.A. (CAVSA)** in the mid-1980s, manufacturing and supplying aftermarket automotive fans for a wide variety of vehicles. For years, these were purely metals-driven applications, but as time went on, Robles started to notice a slow but growing demand for thermoplastic fans, first in smaller vehicles, then in heavy trucks. He decided that he was going to build a competitive niche by using these materials.

*"We were knowledgeable about metal machining, but didn't really know much about plastics, so we learned on the fly,"* Robles explained.

The demand for thermoplastic fans grew quickly and Robles' bold decision led to accelerating success for **CAVSA**, but behind the scenes, he notes, the story was different. *"We had processing issues with our materials for a long time. The flexibility of the fan blades was inconsistent and some would be brittle and break. We had good quality control to help make sure that these imperfect parts would not leave the factory, but we wasted a lot of money and time over the years,"* he explained. *"We worked with many different Nylon suppliers, but no one seemed to be able to help us get it exactly right."*

The turning point, Robles says, was when he met **RTP Company** in 2011. *"RTP Company looked over our issues very carefully and saw where there were problems. They went through a few trials and created a custom compound for us that worked a lot better than anything else we had ever tried,"* said Robles. *"Since then, we have not had one single reject or failure due to materials. The flex properties in our fans are excellent and cracking and breaking have stopped completely."*

Today, **CAVSA** is more successful than ever, supplying more than three dozen types of aftermarket automotive fans for nameplates as diverse as Volkswagen, Mercedes, Cummins and Caterpillar; vehicles including small sedans, heavy trucks, SUVs and pick-up trucks; and those running on gas, diesel and hybrid electric. In addition, they manufacture industrial fans for energy plants and large HVAC applications—all using the same custom compounded **RTP Company** glass-filled Nylon material.

*"RTP Company was able to supply the perfect material and outstanding technical advice, and as a result our business continues to grow,"* said Robles. *"I think the best years of our company are still ahead, and RTP Company will continue to be a big part of that success."*

**Compañía Automotriz De Ventiladores S.A. Automotive Fan Blade**

**Market:** Automotive  
**Compound:** RTP 299 Series