



Unique Fire Stop Products

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The Automotive “Firewall” They are not what they used to be.

By: Mike Tobias Sr.

Henry Ford saw the value of protecting his equipment and protecting his driver when he invented the first “firewall”. It was born of necessity. There was no way he could sell cars if the motor should catch fire and the driver or passenger was burned. I feel he also envisioned the ability to be able to drive the car with out smoke, fumes and gases from overwhelming the driver. The first “firewall” was invented. It was simple. It was clean and it worked. It worked so well that other manufacturers of cars, trucks and buses adopted the idea and the “automotive firewall” became a “household name’. This was almost 50 years before there were structural building or computer firewalls.

From the research we have conducted I offer you the information that I have acquired from the automotive industry.

The following questions were asked of 100 mechanics as part of a case study. What is the metal plate called that separates the driver from the engine compartment? All 100 mechanics called the metal plate a “firewall”. A random survey of 100 middle aged men was asked the same question. Ninety five percent called it a firewall and 5 % did not know the name but mentioned that it was supposed to stop a fire. When the participants in the survey were asked if they were convinced the automotive firewall would protect them in case of an engine fire in a modern vehicle, the response was as follows: 100% of the mechanics (some took a pause before answering) thought that it might protect them for a few seconds in a raging engine fire but all agreed that any engine fire will be nasty.

The wires cables and hoses will be the first spots to give way to fire. As they burn, they will pump toxic gas and smoke in the driver’s compartment through openings created when the plastic, rubber or tar like substance becomes fully involved and melt. The mechanics also noted openings around the steering shaft and shifter openings will fail to stop an engine fire and contain it to the engine compartment as Henry Ford intended. Today’s cars are inundated with penetrations made by wires, telemetry equipment and video cables. All fuel for a fire. But wait there is MORE.

When the 100 middle aged men surveyed were asked if they were convinced the automotive firewall would protect them in case of an engine fire in a modern vehicle, the response was as follows: 47% thought it would but 53% of men knew it would offer very little protection.

100 people that had no experience in the automotive industry were asked if their cars, trucks or mini vans had inherent features in the firewalls to protect them in the event of an engine fire. 100% said yes.

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There are no standards. No one regulates the automotive firewall. There are no minimum standards for “firestopping” to protect the occupants in an engine fire. There are no industry standard practices that employ sound technology for firestopping the automotive firewall. In fact, the items we found in the average automobile to seal penetrations act as accelerants when ignited. Restoration projects were also using products that will not stop the fire but sold as fire “retardant”. Would you like a firewall in your office building that was fire retardant or one that was fire proofed and firestopped?

There is no debate. There is no one that I could find to talk to about the situation. I called the Automotive Engineers in Washington. They regulate everything in the automotive industry, except firewalls. In fact, once I got to a young engineer who informed me the automotive industry does not recognize a vehicle as having any firewalls. He said they were “bulkheads”. When asked to elaborate he referred me to legal counsel. I won’t debate with a Washington Lawyer the merits of a firewall.

Where there is knowledge there is progress. The racing industry is the test and proving ground of the modern car and truck industry. Every racer I have spoken to respects the life safety aspects of the firewall and many will take steps to improve their chances of getting out of a burning race car without being burned. Restoration mechanics and drivers of restored vintage cars and trucks, once educated, will take steps to protect their investment where the firewall is concerned. Many of the people involved with racing know the dangers of an engine fire. Not a single competition driver hesitated to know more about fire safety if they had ever been involved in a fire.

What to do now? That is the question. Our small firestop company has developed unique fire stop systems for commercial and industrial buildings. These systems allow wires and cables to penetrate a fire rated barrier. It is tested to standards at Underwriters Laboratories and if it passes the test, we get a listing.

My son Matthew races at the local dirt track and I began going to the track with him about 2 years ago. Soon I was hooked. I joined the IMCA and now we both race the hobby stock class at Deep South Speedway in Loxley, Alabama. It was at that track that I first discovered the automotive firewall was no firewall at all. The hobby cars that we bought had holes big enough to place your fist in right in the middle of the firewall. It did not take long for us to modify and scale down the mechanical systems we had developed for buildings to seal the race cars firewall.

We put all the wires, cables and hoses in sleeve systems. We sealed all the cracks and seams in the firewall with fire rated expanding foam. We sealed openings with things that have movement, like the throttle rod, with a special smoke rated sponge. All that we did in the name of “self-preservation” at the time. We are able to race now with no worries that we might get burned in an engine fire. That is a very good thing!

Now we are in the Automotive Firestopping Business. The new division of Unique Fire Stop is awash in ideas for the life safety of the race driver, sport enthusiast or hot rodder. Our products are developed at the local track and tested to the limits of our imagination.

The Fire Stopper is a light weight threaded aluminum sleeve. Available in 1, $\frac{3}{4}$ and $\frac{1}{2}$ inch diameters. The system includes "intumescent" firestop putty to seal the system.

The Expanding Firestop Foam is available now in a form that will not gas you if there is a fire. Many mechanics will seal cracks and seams with silicone or Great Stuff insulation from the local building supply. STOP IT!

When exposed to flame, Great Stuff will catch fire and produce toxic gas. Silicone is even worse!

Our last mission was to smoke seal openings where shafts and rods require movement through the firewall. Mission accomplished, with our automotive "smoke sponge". The smoke sponge can be installed to allow for the movement of a shaft or rod without exposing the driver to smoke and gases.

All 3 systems are now assembled in the form of a Kit. One Kit should firestop a typical car front and back. We have priced the total system at less than what a good pair of gloves cost.

We are accepted for use in NASCAR, IMCA and SCCA organizations. This concept can be seen and purchased at:

<https://www.uniquefirestop.com/store/automotive-firestopper-kit/>

Automotive Fire Stopper with Putty

For wires cables and hoses



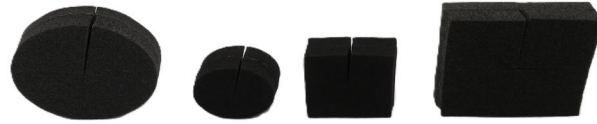
Automotive Expanding Foam

For small openings and seams



Automotive Smoke Sponge

For things that move, like throttle rods



Automotive Fire Stop Kit

Can fire stop an entire race car



Questions?

Call the factory at 251-960-5018

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