

You're Electric Vehicle  
Fire Solution for when you...  
**CAN'T LET IT BURN!**



— TOXIC —  
SUPPRESSION

Electric Vehicle Fire  
Solutions

Introducing the Spartanburg-Pruitt  
Protocol for EV Fires



**The rise of electric vehicles brings new volatile challenges to firefighting such as high temperatures, toxic chemicals and stranded energy.**

As the world pivots to sustainable modes of transportation, electric vehicles (EVs) have moved from being a niche choice to a mainstream option. But with this revolution comes an often-underestimated hazard: the unique challenges posed by thermal runaway and EV fires.

## **A Different Beast**

The inherent risks associated with lithium-ion batteries in EVs introduce complexities not seen in conventional vehicles. The most significant challenges in EV fires are the intense temperatures, toxic vapor clouds, heavy metals, thermal runaway, and the presence of stranded energy.

## **Threat of Re-ignition**

Proactive suppression and containment are vital to minimize the risk of re-ignition during transport and storage post-incident which can occur days or weeks later.

## **The Wild Wild West of EV Manufacturing**

No Electric vehicle is manufactured the same and manufacturer emergency response guides can vary greatly. This emphasizes the need for products and a protocol adaptable enough to cover most EV fire scenarios.

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# Introducing the SPP: Spartanburg - Pruitt Protocol FOR WHEN YOU CAN'T LET IT BURN

## Spartanburg - Pruitt Protocol

# S

### STANDARD FF TECHNIQUES

Knock down during initial attack is critical for reducing temperatures from as high as 5000° (F) to under 1000° (F) utilizing standard firefighting techniques.

**Initial attack of EV fire using traditional firefighting methods:** Reducing temperatures within the vehicle provides a safer environment in which to pull the Toxic Tarp or EV Blanket over the vehicle.

# P

### PLACE TOXIC TARP

This step prevents reignition of general combustion within vehicle and provides security to surrounding exposures.

**Optimal Placement:** Drape the Fire Security Blanket over the vehicle, covering the affected area to reduce oxygen and prevent re-ignition of vehicle contents and to protect adjacent exposures. The placement should be evenly positioned over vehicle, ensuring complete coverage.

# P

### POSITION EV NOZZLE

By applying cooling water directly to the underside of vehicle battery pack after placement of EV Blanket has shown to stabilize thermal runaway within 15 Minutes to 1 Hour.

**Slide charged EV Nozzle** beneath the vehicle, aligning it off-center towards the most intense heat source identified by TIC readings. Monitor until temperatures are deemed safe for transport. It is highly recommended to Escort The Tow.

**These Two Steps Isolate the fire to the battery pack and limit other parts of the vehicle from causing thermal runaway in unaffected, undamaged battery cells.**



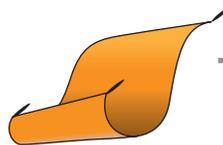
### Electric Vehicle Extrication Considerations

Place nozzle under rear wheels in case batteries start going into thermal runaway. At any sign of hissing, popping, or hints of white smoke, immediately charge EV Nozzle to disperse toxic gasses and begin cooling.

# EV FIRE SECURITY BLANKETS

As electric vehicle fires present new challenges, Toxic Tarps are specially developed to give first responders a tactical advantage when used per the Spartanburg-Pruitt Protocol and along with SUDZ-IT Electric Vehicle Nozzles.

Developed for rugged dependability and rapid deployment.



**TOXIC TARP**  
FIRE SUPPRESSION BLANKET

## TOXIC TARP 1100

**Silica Coated Fiberglass**

1100° F Rating

20' x 26'

85 lbs



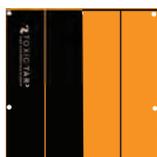
\*Carry Bag Included

## STANDARD FEATURES



### 1-1/2" XL GROMMETS

Allows for simple pike pole attachment for greater standoff distance or higher reach for taller vehicles. Positioned at natural tie down points for ease of use



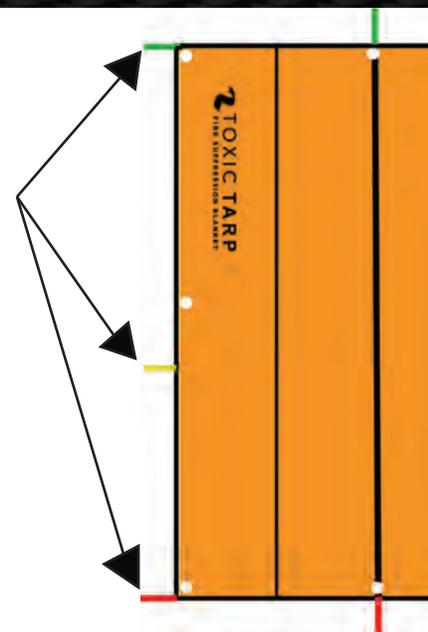
### TRIPLE STITCHED COLOR CODED SEAM GUARDS

Alternate color seam guards offer enhanced strength and security against popping struts and vehicle components while also providing a visual indicator of proper placement.

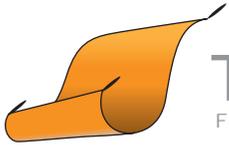
### COLOR CODED OFFSET HANDLES

With Red handles on both sides at the rear, Yellow handles slightly offset to the rear of center, and green handles at the front act as visual indicators of proper Tarp positioning.

The yellow offset handles are designed to be placed on the trunk/frunk where the green front handles can then be grabbed to easily pull the remaining tarp over the rest of vehicle



# EV FIRE SECURITY BLANKETS



**TOXIC TARP**  
FIRE SUPPRESSION BLANKET

## TOXIC TARP 2700

### Carbon Fiber

2700° F Rating

20' x 26'

55 lbs



\*Carry Bag Included

### IDEAL FOR USE FOR

#### **PUBLIC SAFETY**

**Fire Departments and Law Enforcement**

#### **URBAN CENTERS**

Parking Lots  
Parking Garages  
Public Events

#### **TRANSIT POINTS**

Airports  
Ferries  
Tunnels  
Bridges

#### **SERVICE PROVIDERS**

Towing Services  
Charging Stations  
Tow yards  
Auto Repair

# SUDZ-IT

## EV Utility Nozzle



The patent-pending SUDZ-IT EV Nozzle is the first of its kind, designed to be slid under burning objects, to help cool them down and extinguish stubborn fires.

The SUDZ-IT Utility Nozzle allows for water to be sprayed in the tightest of spaces. This low-profile nozzle is perfect for electric vehicles which often have a clearance of less than 6 inches. It distributes water evenly, precisely, and safely to the most inaccessible part of the vehicle, the battery pack.

As electric vehicle fires are an extended event, using the SUDZ-IT EV Utility Nozzle makes every precious drop of water count in order to do its job – Cool and Extinguish.

### WATER COVERAGE



The SUDZ-IT Utility Nozzle incorporates a set of skids attached to the nozzle to make placement easier and comes standard with two 3-foot extension pipes fitted with a water curtain nozzle to provide radiant heat protection while setting in place. Once the EV Utility Nozzle is in place, the firefighter can then safely back away and go about their job.

TOTAL SPRAY  
PATTERN COVERAGE

128  
square feet

The SUDZ-IT EV Utility Nozzle  
can be used in the following applications:

- Electric Vehicle fires
- Scooter battery fires
- Traditional engine fires
- Pallet fires
- Cooling LP tanks
- As a decon nozzle
- As a decon shower head
- Over hauling furniture
- Wetting a fire break
- Overhauling tight areas



# A NOZZLE FOR EVERY SCENARIO



## SUDZ-IT

EV UTILITY NOZZLE  
110 GPM  
85 GPM CHOKE  
75 GPM CHOKE

1" Diameter x 40"  
Extension Tube

1" Diameter x 40"  
Extension Tube  
with Skid Plates

Water Fan  
Spray Head

T-Adapter

1-1/2" F NH to  
1" F Camlock



## TRIDENT 250 1.5" EV NOZZLE

Pickup Trucks  
Mid-Size Delivery  
Trucks



## BIG WATER 500 2.5" EV NOZZLE

EV City Busses  
EV School Busses  
Heavy Duty EV's



## DOOR HANG KIT w/ 1" NOZZLE HEAD

For EV's where the  
ERG says to fill up the  
passenger compartment

\*All EV Nozzles come standard with NH couplings, special thread charges may apply. Please specify at time of order.

## UTILITY KIT COMPONENTS



12" Extension Tube



4" Extension Tube



Male Smooth Bore  
Decon Shower  
Cockloft Nozzle  
Door Hanger Nozzle



clamp



45 degree  
elbow



90 degree  
elbow



Female Smooth  
Bore

### USE AS

## ANTICIPATED WATER DEMAND VOLUMES

Nozzle Type	Initial Knock Down (Gallons)	15 Cooling Minutes (Gallons)	30 Cooling Minutes (Gallons)	60 Cooling Minutes (Gallons)
EV UTILITY Nozzle No Choke (100 GPM)	500	1500	3000	6000
EV UTILITY Nozzle (85 GPM Choke)	500	1275	2550	5100
EV UTILITY Nozzle (75 GPM Choke)	500	1125	2250	4500
TRIDENT 250 (250 GPM)	500	3750	7500	15000
BIG WATER 500 (500 GPM)	500	7500	15000	30000

The Spartanburg-Pruitt Protocol Requires Between 15-60 minutes to Stabilize Temps

# SUDZ-IT

EV Utility Nozzle  
Utility Kit  
Configurations

Door Hang Nozzle  
Configuration



Cockloft/Cellar/Attic  
Nozzle Configuration



Decon Shower  
Configuration



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