

HDS - Portable Hose Decon System

US PATENT: 12.145.176

THE NEED TO CLEAN FIRE HOSES ON-SCENE

Firefighters are exposed to toxic carcinogens from contaminated attack hose lines after every fire. While PPE decontamination has become standard, fire hoses remain a major source of exposure.



- Fire hoses accumulate heavy carcinogenic soot and particulates.
- These contaminants transfer to firefighters, fire trucks, and stations.
- Without on-scene hose cleaning, exposure risks persist.



THE SOLUTION: HDS – On-Scene Hose Decontamination

The HDS Portable Hose Cleaning System is designed to efficiently remove contaminants on-site before firefighters leave the fire ground. Lightweight, battery-powered, and easy to use, it ensures a cleaner fire ground and reduces long-term cancer risks.



SCAN TO WATCH!

- **Portable & Mobile** – Easy to transport and deploy.
- **Single Operator Use** – No extra manpower is needed.
- **Battery-Operated** – No external power required.
- **Fast & Effective** – Cleans hoses in seconds.
- **Reduces Carcinogen Exposure** – Scientifically tested & firefighter-approved.





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DESIGNED TO PROTECT THE FIRE SERVICE AND TESTED BY SCIENCE

Genesis Rescue Systems is committed to developing evidence-based solutions that help protect firefighters from hazardous contamination on their equipment. As part of ongoing research at **North Carolina State University's Milliken Textile Protection and Comfort Center (TPACC)** regarding on-scene decontamination practices, the Genesis Hose Decon System (HDS) was independently evaluated under the direction of Dr. Bryan Ormond, Associate Professor and Director of TPACC. Testing assessed the system's ability to remove fireground contaminants from hose surfaces following exposures during both training center and acquired structure burns.

In TPACC's evaluation, new fire hoses were used during interior fire attack scenarios at multiple training sites over several months. Selected lengths were cleaned after each day's use, while others were retained unwashed for comparison.

*The Genesis HDS uses a wet brush decontamination process much like that examined by Fent et al. (2017), which reported an **85% median reduction in polycyclic aromatic hydrocarbons (PAHs)** on firefighter gear using this technique. Consistent with that research, TPACC found that **utilization of the Genesis HDS effectively reduced particulate and chemical surface contamination on fire hoses**. When used promptly after each exposure, reduction levels experienced were consistent with, and in many cases exceeded, those observed in the Fent et al. study.*

The Genesis Hose Decon System offers a practical, field-ready solution for routine hose cleaning and decontamination on-scene and elsewhere, helping to minimize harmful contaminant build-up and support a cleaner, safer fire service.

SEE THE DIFFERENCE



SCAN TO WATCH!



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HDS Specifications

PART NUMBER: 156911GRS

LENGTH (in)	23
WIDTH (in)	22
HEIGHT (in)	13
WEIGHT (lbs)	66
BATTERY RUNTIME (minutes)	50
POWER SUPPLY*	18v Milwaukee
WATER PRESSURE (INTAKE PSI)	60-90
WATER SUPPLY	1.5" NST COUPLING
MAX HOSE SIZE (FOR CLEANING)	3" COUPLING



***Battery and charger not included**

