



# Particle Filter Hood REDEFINING PPE!

## 3-Ply Protection Where You Need It Most:

**OUTER LAYER - Temperature Protection Outer Layer – Breathable Heat-Blocking Protection**

**HALO LAYER - Particle Protection – Blocks Dangerous Particles From Skin Exposure**

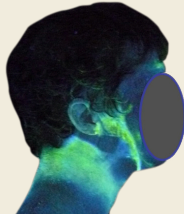
**INNER LAYER - Next-to-Skin Moisture Wicking – For Comfort and Temperature Control**

## HALO PARTICLE FILTER HOOD

- The role of the HALO particle filter fabric is to filter and/or block particles.
- HALO particle filter fabric is state-of-the-art fabric and technology.
- **HALO particle filter fabric is strategically placed to protect high exposure areas of the head and neck (areas that are not covered by the SCBA facepiece, helmet and coat collar)**



BEFORE EXPOSURE



AFTER EXPOSURE

Wearing a standard 2-ply knit hood

SOURCE: IAFF FAST Evaluation at RTI, Jan. 2015

- The HALO hood is color blocked to show placement of the HALO particle filter fabric (GREY fabric area contains the HALO particle filter fabric).
- BLACK fabric area of the HALO hood in our carbon Ultra C6 fabric. Ultra C6 is a breathable heat blocking fabric engineered to stabilize your body core temperature.



## HALO HOOD ADVANTAGES

- One application, one movement for ease of donning and doffing – product design demonstrates a bias for simplicity and utility
- Combines a next to skin moisture wicking base layer technology + HALO particle filter layer + heat blocking outer layer
- Testing shows HALO Hood fabrics block 96.6% of the particles at the smallest particle size range of .3 microns
- Effectiveness of HALO hood can be determined by evaluating how many particles will pass through the overall hood material composite
- HALO hood fabrics can withstand repeated laundering, while laminated fabrics can breakdown over time with laundering
- HALO hood easy to care for with regular washing and drying (permanent fabric performance that will NOT wash or wear out over time)
- Wicking base layer spreads moisture out across the fabric to enhance the evaporative drying rate
- Helps to control smoke odor on skin following fireground exposures
- **UL Certified to the current NFPA 1971 standard**



REDEFINING PPE!

The HALO brand and technology is proprietary to Majestic Fire Apparel, a global leader in fire apparel advancement and technology for nearly two decades.

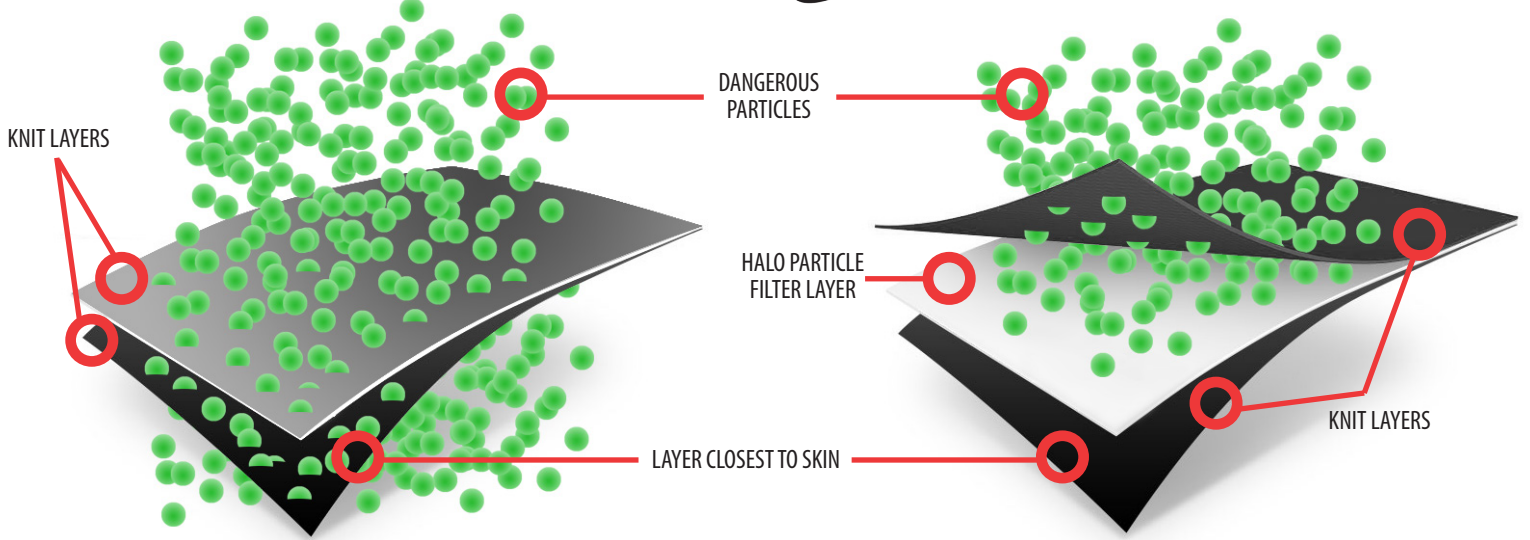




# The PROVEN Leader in Particle Protection



## Standard 2-Ply Knit Hood vs HALO Particle Filter Hood



The standard 2-ply knit hood blocked only 4.5% of particles at the smallest particle size of .3 microns

The HALO Hood blocked 96.6% of particles at the smallest particle size of .3 microns

% OF PARTICLES BLOCKED BY PARTICLE SIZE		
PARTICLE SIZE	HALO HOOD	KNIT HOOD
.3 micron	96.6%	4.5%
.5 micron	98.1%	4.8%
.7 micron	98.2%	6.0%
1 micron	98.4%	7.2%
1.3 micron	98.6%	12.5%
1.6 micron	98.6%	14.4%
2 micron	98.8%	15.1%
2.2 micron	99.0%	26.3%

### About Our Testing

A special test apparatus and procedures were used for evaluating the efficiency of hood material particle hold out in accordance with a standardized test method. Samples of the hood composite that include the special layer were clamped between two flanges of piping. Particles of sizes ranging from 0.3 microns to 3.0 micron in diameter were introduced to the upstream pipe by creating an aerosol (very small droplets suspended in air) of a special oil under controlled conditions and injecting these particles into air being pushed against the sample. By measuring the concentration of particles on the upstream side of the sample and comparing it to the number of particles counted on the downstream side, the percentage of particles that pass through the material were determined using a particle counter. The particle counter was able to distinguish the number of particles at different sizes. Therefore, the percentage penetration of particles was determined by particle size. Further details of these tests can be found on our website: majhoods.com

### EVEN WITH PROTECTION, USE COMMON SENSE ...

Structural fires are hazardous environments. It is important to always wear gear properly. This includes wearing the hood, proper fitting SCBA facepiece, deploying ear flaps, extending the collar fully and making sure that all interface areas are properly secured with sufficient overlap (as particles may still enter through gaps in the ensemble interfaces and by extreme ranges in fire fighter movement). Gear must be cleaned, clothing must be washed and showers must be taken - before returning to work or family activities to reduce exposure to fireground carcinogens and other hazardous substances.

- Use SCBA from initial attack to finish of overhaul. (Not wearing SCBA in both active and post-fire environments is the most dangerous voluntary activity in the fire service today).
- Do field decon of PPE to remove as much soot and particulates as possible.
- Use moist wipes to remove as much soot as possible from head, neck, jaw, throat, underarms and hands immediately, while still on the scene.
- Change your clothes and wash them immediately after a fire.
- Shower thoroughly after a fire.
- Clean your PPE, gloves, hood and helmet immediately after a fire.
- Do not take contaminated clothes or PPE home or store them in your vehicle.
- Decon fire apparatus interiors after fires.
- Keep bunker gear out of living and sleeping quarters.
- Don't use tobacco products.
- Use sunscreen or sun block.



For more information on these or other protective apparel:  
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DISCLAIMER: % of particles blocked will vary with particle size and composition of hood material