

SUMMARY DESCRIPTION

HOT SHIELD FACE MASK / FR RESPIRATOR HOUSING & FACE MASK DESIGNED TO FIT THE DRAEGER XPLORE 3500 HALF FACE RESPIRATOR MODEL HS-5

Hot Shield Fire Resistant Respirator Housing Model HS-5 is designed specifically for the Draeger brand, model Xplore 3500 Half Face Respirator. The HS-5 has been designed by firefighters for wildland firefighting, but has found application in other industries utilizing this particular model respirator. The HS-5s patented design provides for several benefits. Its primary benefit is a high degree of thermal protection to face & neck areas. This is accomplished by use of highly thermally resistant materials and adequate airspacing, both of which are crucial to meet the goal of protecting the human skin. We use CarbonX materials from Chapman Innovations, Utah. CarbonX is a proprietary material tested to withstand over 2000 degrees Fahrenheit and far exceeds the Radiant Protective Performance requirements of NFPA #1977 Standards for Wildland PPE (see charts on website). The combination of our housing with an efficient and user friendly respirator means users readily use and are comfortable wearing the device for extended periods. This special combination also allows “fit testing” of individuals as the respirator itself seals to the users face. The interior materials also absorb perspiration, adding to overall user comfort. The HS-5 protects the user and the respirator. Features 3M Scotchlite Reflective Trim for nighttime visibility. Fastens behind the neck (Velcro). One size fits all, machine washable.

HS-5 DATA SHEET

Name:	Hot Shield FR Housing HS-5
Model Number:	HS-5
Weight:	3.8 oz. / 106.4 grams
Sizing:	One size fits all (hook & loop fasteners behind neck)
Main Benefits:	Protection from burns to the face AND to the respirator itself.
Description:	A facial protection safety garment designed exclusively for use with the Draeger Xplore 3500 Half Face Respirators. Mask is designed to completely cover said respirator without interfering in the face-to-respirator seal, thereby allowing for individual fit testing. Mask can hang loosely around neck until ready for immediate use. Mask uses FR hook and loop fasteners to secure around back of neck.
Main Users:	Mask is used by firefighters and other workers in areas where heat, flame and airborne particulate hazards exist and a self-contained breathing apparatus is impractical or impossible.
Limitations:	Not a respirator; must be used with the Draeger Xplore 3500 only
Coverage:	Most areas of the face and neck. Leaves ears exposed.
Care:	Hand, machine or dry clean.
Warranty:	One year materials and workmanship.

**FREQUENTLY ASKED QUESTIONS OF THE HOT SHIELD MODEL HS-5
FR FACE PROTECTOR & RESPIRATOR HOUSING
FOR THE SUNDSTROM SR-100 HALF FACE RESPIRATOR**

Q: WHAT IS THE HOT SHIELD HS-5?

A: The HOT SHIELD HS-5 is an extremely heat and flame resistant housing exclusively designed for the Drager Xplore 3500. The HS-4 has been designed by firefighters specifically for wildland firefighting, but has found application in other industries that utilize the Xplore 3500 Half Face Respirator, and desire protection against burns. Drager does not endorse the use of the HS-5, but does allow the HS-5 to be sold and marketed by Hot Shield USA under strict limitations.

Q. HOW DOES THE HOT SHIELD HS-5 PROTECT YOU?

A: In general, our products greatly reduce the risk of burns to your face by the use of highly thermally resistant materials combined with our patented design. The outer shell of every Hot Shield mask, shroud or respirator housing is made of super tough & extreme fire resistant CarbonX fabric. This material will not burn, ignite, char, shrink or decompose at temperatures reaching and exceeding 2000 degrees Fahrenheit, even for extended periods of time. CarbonX accomplishes this with less weight than traditional PPE materials. CarbonX was initially developed by a race car driver after he suffered severe burns and is used extensively in that industry in racing suits & gloves. Hot Shield USA has been using CarbonX exclusively since November 2001. Specifically, the HS-5 protects the respirator and the portions of your neck and face areas the respirator does not cover and are exposed to the hazards.

Specifically, by using the HS-5, in conjunction with the above mentioned respirator, a worker can take advantage of the easiest air exchange available in a half face respirator, yet have all the burn protection as well.

Q: IS THE HOT SHIELD HS-5 A RESPIRATOR?

A: No, it is not. The HS-5 is simply the finest, most extremely fire resistant respirator housing in the world. The HS-5 is designed to house the Drager Xplore 3500 Half Face Respirator. Unlike some wet style “bean bag” style filters, the filters in these respirators do not become useless after 8 hours exposure to air.

Q: HAS THE HOT SHIELD HS-5 BEEN INDEPENDENTLY TESTED?

A: Subjective only. However, CarbonX materials far exceed minimum requirements for NFPA Standard #1977 Wildland Protective Clothing and Equipment, Editions 2008 and 2011. CarbonX test data can be found on the website www.Carbonx.com. CarbonX fabrics far exceed NFPA #1977, Edition 2011, Section 8.2, Radiant Protective Performance (RPP), Section 8.3 Flame Resistance and 8.4 Heat & Thermal Shrinkage Resistance.

Q: WHAT ABOUT NFPA COMPLIANCE?

A: There is not a “sound bite” quick answer to this question. Let’s start by understanding that all requirements for face protection accessories were deleted from the NFPA #1977 “Standard

on Protective Clothing & Equipment for Wildland Fire Fighting” 2011 Edition. Wildland respirator requirements have been drafted and approved and are contained in the NFPA #1984 “Standard on Respirators for Wildland Fire-Fighting Operations”. To date, no manufacturer has submitted their respirator for compliance to this standard. This truly has created a “Catch-22” dilemma for both firefighters and fire chiefs. If a manufacturer chooses to do so, then the Hot Shield would be considered an “accessory” under NFPA definitions and as such, is not required to be tested provided that the non-required for purchase accessory does not affect inhalation or exhalation or fit or does not change any configuration or performance which the air purifying respirator (APR) was originally certified as.

It is our opinion that all of our masks fit the definition both in legalese and common sense as “accessories”. We also know that our masks far exceed all heat and flame tests NFPA has set for both clothing & wildland respirators. Common sense dictates one should protect one’s face & neck & airway with the best possible options. In a negative pressure working environment, such as wildland, the Hot Shield masks are the best option available.

Q: CAN THE HOT SHIELD HS-5 PROTECT ME FROM SUPER HEATED AIR?

A: No, only a breathing apparatus can do that? Use of a HOT SHIELD HS-5 FR Respirator Housing does not guarantee a firefighter will not suffer a respiratory burn due to inhalation of superheated air, however the risk or hazard of such an event is dramatically reduced by the design and materials we incorporate: CarbonX® .

Q: IS THE HOT SHIELD HS-5 COMPATIBLE WITH BOTH FORESTRY TYPE AND STRUCTURE TYPE HELMETS? WHAT ABOUT MY EXISTING SHROUD?

A: The HS-5 is a 1 of 2 components. The Drager Xplore 3500 would be the other. Together, they comprise a “stand alone” breathing and face protection system. It does not matter which type of helmet you use. Your standard shroud will only close around the bottom of the respirator.

Q: IS THE HOT SHIELD HS-5 COMPATIBLE WITH GOGGLES? PRESCRIPTION GLASSES?

A: Yes. That is one of the advantages.

Q: WHAT IS THE ADVANTAGE/BENEFIT OR FEATURES OF THE DRAGER XPLORE 3500 RESPIRATOR?

A: 1st – It is small and very light; a real plus for wildland firefighters who have to carry so many items these days. 2nd- Air exchange, both inhalation and exhalation is efficient. The fact that the materials of the housing do not come between you and the Drager Xplore 3500 allows fit testing for individuals and companies that require it.

QUESTIONS TO ASK WHEN CHOOSING FACIAL PPE FOR WILDLAND

- 1- Does any major firefighter clothing manufacturer or PPE manufacturer use polyester or styrene foam beads as a vapor barrier or liner in their firefighter clothing line?
- 2- When was the last time you or the Chief “spec’ed out” polyester fabric as a liner for PPE?
- 3- What is the melting point of polystyrene foam beads (what you find in a bean bag chair)?
- 4- What is the melting point of polyester?
- 5- What are the risks of inhaling melting polyester and styrene foam?

6- Would you like to breathe through a gooey, sticky, wet, “bean bag” style filter mashed up onto your mouth & nose?

7- Do you have time to remove & re-install filters several times in a fire?

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