



**NFCC**  
National Fire  
Chiefs Council

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UK Fire & Rescue Service

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# **Firefighters Personal Protective Equipment**

## **Standard, Specification and Requirements**

### **Urban Search and Rescue (USAR) [Technical Rescue]**

#### **Hot gas cutting PPE**

**[Includes: - leather spats, gauntlets, flash hood  
and helmet/face shield/goggles]**

**Specialist PPE Project – Oct 2021**

## **SCOPE**

This performance specification describes the requirements for protective hot gas cutting PPE for both male and female fire fighters.

The hot gas cutting PPE should offer the wearer protection from injuries, which could arise through accidents in the working sector for which the hot gas cutting PPE is designed.

The hot gas cutting PPE is to be CE marked to the various product standards as prescribed below.

## **PERFORMANCE REQUIREMENTS**

### **Description and Use**

Provision of protective hot gas cutting PPE that meets the general and specific needs of Fire & Rescue Service (FRS) operational personnel.

The product must be suited to the range of technical rescue activities carried out during emergency response and training operations. The product must be of such design, robustness, material and specification to meet the needs of these operations. It should also be simple to clean, repair and maintain.

All test performance data must be submitted with tender document, please indicate compliant and submitted where requested. All documentation to be in English.

Hot gas cutting PPE is designed, following a suitable risk assessment, to protect firefighters from risks that cannot be removed by other means.

One potential emerging risk to firefighter's health is exposure to contaminants as a result of the incidents that they attend; some of these contaminants may be carcinogenic.

All Contractors should be mindful of these emerging risks and as such ensure that the PPE is designed to be easily cleaned and decontaminated. In addition methods for identifying that the PPE may be contaminated should also be considered when designing the PPE.

Requirement Reference Number	Requirement	Response Criteria
A1	<p><b>Leather Spats</b></p> <p>Items shall be compliant to EN ISO 11611:2015</p> <ul style="list-style-type: none"> <li>• Class 2</li> </ul> <p>To be available in a single generic adjustable size that fits all boots sizes from 35 to 50</p>	<p>Evidence from Tenderer shall constitute:</p> <p>(1) Independent Certification from test laboratories that are accredited to their respective National Accreditation Service, The National Accreditation Service must be members of either EA or ILAC and comply with ISO/IEC 17011:2017. Validity of Certification must be 6 months or more prior to date of expiry, or; A signed letter on official letterhead from the relevant test house stating that work to complete the required certification has been commissioned and certification will be achieved before the required deadline.</p> <p>(2) Detailed Product specification.</p>
A2	<p><b>Helmet/face shield/goggles</b></p> <p>Helmet must conform to EN 12492 and EN 16473 (or EN 397)</p> <p>Helmet Eye protection must be compliant to EN 166</p> <ul style="list-style-type: none"> <li>• 1F impact</li> </ul> <p>Helmet Eye protection must be compliant to EN 169</p> <ul style="list-style-type: none"> <li>• Welding Shield (shade 5)</li> <li>• Goggles (shade 3)</li> </ul> <p>Helmet Eye protection must be compliant to EN 170, ultraviolet filters</p> <p>Helmet must be available in a generic adjustable size with at least a minimum range of sizes between 52cm to 64cm inclusive.</p>	
A3	<p><b>Gauntlets</b></p> <p>Items must be compliant to EN 388</p> <p>Items must be compliant to EN 407</p> <ul style="list-style-type: none"> <li>• Burning behaviour – level 4</li> <li>• Contact heat – level 1</li> <li>• Convective heat – level 3</li> <li>• Radiant heat – level 3</li> <li>• Small splashes of molten metal – level 4</li> </ul> <p>To be available in all sizes from 6 to 11 and be compliant to EN 420</p>	

A4	<p><b>Flash Hood</b></p> <p>Item must be compliant to EN ISO 11611:2015</p> <ul style="list-style-type: none"> <li>• Class 2</li> </ul>	
A5	<p><b>Compatibility</b></p> <p>All items must be compatible with each other and in particular with: -</p> <ul style="list-style-type: none"> <li>• USAR boots conforming to EN 15090:2012</li> <li>• hot gas cutting coveralls, confirming to EN 11612</li> <li>• respiratory protection equipment conforming to EN136 and EN137</li> <li>• for use with Petrogen and Broco (hot gas cutting)</li> </ul>	<p>Evidence from Tenderer shall constitute:</p> <ul style="list-style-type: none"> <li>• Detailed Product specification to evidence compliance with all points</li> </ul>

<b>Hot gas cutting PPE - General Requirements</b>		
B1	<p>To include a facility to provide 'made to measure' for wearers that fall outside standard size ranges.</p>	<p>Evidence from Tenderer shall constitute:</p> <ul style="list-style-type: none"> <li>• Detailed Product specification</li> <li>• The actual sizing chart to be offered via the Framework that evidences provision of all sizes required</li> </ul>
B2	<p>Each garment will need to be uniquely barcoded in order that the Authority is able to track each garment, particularly if a garment is sent for cleaning, repair and maintenance.</p> <p>The Tenderer must provide an inventory of barcodes with each order delivered and hold a central database of all barcodes assigned to each order for each Participating Authority.</p>	<p>The Tenderer must provide relevant evidence to demonstrate how the requirement shall be met, and shall include product information of the barcoding system that shall be used to meet the requirement.</p>

<b>Hot gas cutting PPE - Additional Documentation</b>		
C1	<p>The tenderer shall provide all relevant user documentation and manuals that details how the item is:</p> <ol style="list-style-type: none"> <li>1. Safely used and adjusted (if necessary)</li> <li>2. Maintained, including repair if relevant</li> <li>3. Cleaned</li> </ol> <p>All of these to be published in English.</p>	<p>Evidence from Tenderer shall constitute:</p> <p>User documents that come with the product detailing all the requirements (1, 2, and 3 as listed) in English on company headed or branded paperwork</p>

<b>Hot gas cutting PPE - Optional Fire Service Requirement</b>		
D1	No optional requirements	