



Standard Practice for Body Measurements and Sizing of Fire and Rescue Services Uniforms and Other Thermal Hazard Protective Clothing¹

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INTRODUCTION

The selection of proper uniform size is important to fit and appearance for all users, but more importantly, it relates directly to garment function. In certain occupations, such as fire and rescue services, proper fit and function relates directly to the individual's ability to perform jobs that are often hazardous. Issues of proper fit are directly associated with the risk of injury. A work uniform that restricts movement or exposes the skin to hazardous environments will result in lost efficiency and may promote injury and illness. Proper sizing is a factor in the ability of a person to perform tasks that often involve life or death situations. A work uniform must also fit well to function properly when additional outer protective garments and safety equipment are worn.

This practice establishes a standard method for measuring body dimensions pertinent to the determination of a garment size which provides good fit. It also presents issues critical to garment size selection as it relates to fit. Functional methods are provided for determining proper fit of a uniform. Information is provided on garment shrinkage which results from the clothing being laundered. Maternity wear and unique sizing issues are addressed.

1. Scope

1.1 This practice is intended to assist in size selection of work uniforms for fire and rescue services personnel and workers who may be exposed to thermal hazards. Work uniform ensembles consist of a shirt and trouser apparel combination.

1.2 This practice is applicable to uniforms for both male and female personnel.

1.3 This practice provides a standard means for measuring human body dimensions for the selection and ordering shirts and trousers.

1.4 This practice provides a means for evaluating the fit of selected uniform sizes.

1.5 This practice provides a standard list of textile and apparel terminology specific to the clothing industry which is used in determining size and fit of garments. This vocabulary will be useful in communications between buyers and sellers.

1.6 The values stated in SI units are to be regarded as standard. The inch-pound equivalents given in parentheses are for information only and may be approximate.

1.7 This standard is not intended for use in evaluating the fire resistive performance or durability of work uniforms. In addition, this practice does not provide a means to quantify the likelihood of human injuries that may be related to the fit of uniforms or protective clothing.

1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* Specific precautionary statements are given in **Note 1**.

2. Referenced Documents

2.1 *ASTM Standards:*²

D123 Terminology Relating to Textiles

D5219 Terminology Relating to Body Dimensions for Apparel Sizing

F1154 Practices for Qualitatively Evaluating the Comfort,

¹ This practice is under the jurisdiction of ASTM Committee **F23** on Personal Protective Clothing and Equipment and is the direct responsibility of Subcommittee **F23.60** on Human Factors.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.