

UniTech RF Safety

Protection - Training - Consulting

DEFINITION: UniTech

noun: U.S. based international one-stop source for RF training, consulting, and protective products against non-ionizing electromagnetic radiation (RF).

RF Protection Garments

UniTech Services Group is a forty-five year international leader in protective garments to commercial and government nuclear facilities. In addition to RF training and consulting, UniTech offers a flame-retardant RF garment system which has been in worldwide use for more than 10 years. It is the first-ever CE-certified protective garment to reduce exposure to high frequency electromagnetic radiation.

UniTech RF garments use patented, high quality conductive yarn containing stainless steel fibers in the core of the yarn. Tailoring is excellent and the coveralls can be machine washed with no deterioration in shielding or service life.

RF garments provided by UniTech have been successfully certified according to German standard DIN 32780 and fulfill all criteria stipulated therein.

CE certification guarantees constant quality of all components used for RF suits as well as the manufacturing process of the suits under the supervision of an independent authorized European laboratory.



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Exhaustive Testing

UniTech RF garments have been tested in conformance with the U.S. ANSI/IEEE standard and the German DIN VDE standards. Garments have been tested by the U.S. Navy, the German Armed Forces, German Telekom, several independent institutes, and several large licensees. The results show that the garments provide ample protection for high radio and radar frequencies and high power microwave applications.



After extensive testing, the Department of the Navy, Naval Aerospace Medical Research Laboratory concluded: "The full protective ensemble changed out-of-compliance and borderline exposure situations into ones that were not only in compliance but also with a wide margin of safety. We believe that our data and this report are strong support for the use of Naptex in many occupational RF exposure situations."



According to the U.S. Department of Labor, RF protective clothing must address the following characteristics:

- MATERIAL BREAKDOWN THRESHOLD
- SURFACE TEMPERATURE STABILITY
- SPECIFIC ABSORPTION RATE (SAR) REDUCTION
- USE/CARE AND WORKER ACCEPTANCE

The effectiveness and safety of UniTech RF garments has been acknowledged by the U.S. Department of Labor and OSHA. In response to the Department of Labor criteria review, OSHA stated:

"assuming the above criteria are met, it is our position that RFR Protective Clothing can be a valuable addition to existing safety measures for a variety of practical applications, such as FM radio, Television, and microwave tower maintenance, when used within prescribed field parameters."

For more information on the UniTech RF Garment System or to discuss your application, contact a UniTech engineer at:

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