

# FROM PAPER HATS TO PROTECTIVE DEVICES: THE DESIGN PROCESS FOR A VERY COMPACT CBRN HOOD

Mark Hodgson

Avon Protection Systems.

In today's new product development, it is a common temptation for designers to employ computer aided design (CAD) packages during the early stages of the design phase. The restriction with this approach is that the designer's creativity is limited by his or her knowledge and capability of the relevant CAD package. Another issue arises when physical trials need to be carried out; because making prototypes of 3D components rapidly can be expensive and their material properties will not always be suitably representative. There are cheaper, less time consuming and reliable means of achieving the same results.

This paper describes a design process which involves combining low cost, readily available materials with experienced (some might say old-fashioned) model making skills. With this approach much valuable information can be gained from initial wearer trials prior to the exploitation of CAD software. The CAD model is then based on the already developed, and possibly tested, hand made prototypes, before any tooling is produced which maximises the use of valuable resources.