

# GUYMARK SOUND SENSORS® // HEARING PROTECTION

## ANATOMICAL IMPRESSION AND FITTING STAGES

**SOUND SENSORS®** are manufactured to an anatomical pattern of each individual ear and the process consists of three stages and a minimum of two visits:

### STAGE 1

Before clinical impressions can be taken the ear canals must be clear of any debris, foreign objects, wax and any clinical contra-indications. On the first visit the ear canals are examined for any of these conditions (ideally, all potential users of **SOUND SENSORS® II** should have their ears examined by the organisation's doctor or nurse or their GP prior to this visit) and if all is well the impressions are taken. If all is not well, alternative arrangements are made.

A small foam stop is placed in the ear canal to determine the depth of the impression (past the second bend of the canal) and the impression material (a soft putty-like substance) is syringed into the ear canal. This material is then allowed to cure for approximately four minutes whilst it takes up the natural shape of the canal but remaining flexible. The cured impression is then removed along with the foam stop and the ears are examined again to ensure that everything has been removed. This whole stage takes about 20 minutes on an individual basis or 12 people per hour on a volume basis.

### STAGE 2

In the laboratory the impressions are used to form a mould that is cast in hypoallergenic acrylic to form the basis of **SOUND SENSORS® II**.

### STAGE 3

On the second visit the finished product is fitted to each individual's ears to ensure a perfect and comfortable fit and seal. High level sounds are generated to test the communication ability and to provide the user with the confidence of knowing that the **SOUND SENSORS® II** really do work. This is necessary because the user can hear normal levels of speech and even a whisper and it is difficult for them to appreciate that, although there are no valves, moving parts or electronics, high levels of sound will be reduced to a safe and tolerable level and yet they can still communicate.

Finally, instructions are given on the use and care of **SOUND SENSORS® II**. Stage 3 takes approximately 10 minutes per individual or 18 to 20 people per hour.