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(57) Abstract :
ABSTRACT The present disclosure introduces suction seal ear guard 100, an innovative ear protection device designed to simplify insertion and enhance noise reduction. The system utilizes a compressible suction funnel 102 to create a suction effect, compressing the outer earplug body 104 for easier insertion into the ear canal. The inner pin structure 106 controls the suction mechanism by pulling to compress the earplug and releasing to allow expansion. Upon release, the outer earplug body or outer earplug body 104 expands, forming a secure fit that effectively blocks external noise. The design ensures user comfort and usability, particularly for individuals unfamiliar with traditional earplugs. The device is reusable, hygienic, and provides a long-lasting system for noise protection in industrial and non-industrial environments. Reference Fig 1

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