

ABSTRACT

DEMOLDING AND DELENSING METHODS AND SYSTEMS IN THE MANUFACTURE OF SILICONE HYDROGEL CONTACT LENS

Methods and apparatus for separating mold sections, removing a lens product from the separated mold sections, and transferring the lens product to a processing tray are provided and include contacting assembled mold sections with a warm fluid to break fused portions between the mold sections, and using one or more wedge shaped elements to pry apart and separate the mold sections, one from the other. A vacuum head having multiple vacuum ports is employed for lifting the newly molded lens product from a mold section and for releasing the lens from the vacuum head into a processing tray. A cylinder of flowing air directed around the circumference of the lens is effective to maintain the lens in an unfolded position as the lens is being released into the processing tray. A tray set including multiple trays holding multiple lenses is provided and includes features for enabling visual and/or mechanical distinction of the trays and lenses held thereby.

Fig. 2