

ABSTRACT OF THE DISCLOSURE

Demolding apparatus for reliably and repeatedly mechanically separating contact lens mold assemblies without damaging the contact lens formed therebetween. The mold assembly includes a frontcurve mold having a central mold section with a surrounding flange, and a corresponding backcurve mold also having a central mold section with a surrounding flange, with a contact lens being molded therebetween. The demolding apparatus includes a conductive heating probe which contacts the backcurve mold of the lens mold assembly to conductively heat the backcurve mold. Heat is conducted by the backcurve mold to cause a temperature gradient between the backcurve mold and the lens being demolded. The temperature gradient causes a differential expansion and shifting of the surface of the backcurve mold relative to the surface of the lens to lessen the adhesion therebetween to assist in separation of the molds, while leaving the lens in the frontcurve mold.

The conductive heating probe includes a convex heating surface which contacts and is the same general shape as a concave surface on the backcurve mold, and can also include a compliant heat conductor to conform to the concave surface on the backcurve mold. In one embodiment, the apparatus includes a conductive heating probe assembly having an $n \times m$ array of conductive heating probes which contact each backcurve mold of an $n \times m$ array of molds assemblies positioned in a support pallet.

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