

POST-HYDRATION METHOD AND APPARATUS FOR TRANSPORTING,
INSPECTING AND PACKAGING CONTACT LENSES

ABSTRACT

The present invention, which relates to post hydration processing of contact lenses and the packages into which the lenses are placed, includes several assemblies which are ideally suited to performing the various steps which are associated with post hydration processing. These several assemblies include: a deionizing water injection assembly which fills the packaging elements prior to the lenses being inserted therein; a lens transfer and insertion assembly which removes contact lenses from hydration pallets, alters their spatial distribution, and deposits them into the packaging elements; a buffering station, which includes segregator and integrator devices, and which provides a location for temporarily holding a group of lens-packaging pallets during interruption of subsequent assemblies; a low vibration lens-package transport and inspection assembly which removes the pallets from a conveyor line, inserts them onto low vibration inspection assembly conveyor line, and inspects the lenses to determine which are optically correct; a deionized water extraction assembly which removes the deionized water from the lens-packaging elements; a first rotating lens-package transfer assembly, which removes the lens-package elements from the pallet and deposits the optically correct ones onto a consolidating conveyor line; a consolidating conveyor line and rotating lens-package transfer assembly, the former consolidating the lenses into regular arrays, and the latter rotating and transporting them to the final station; and a saline solution injector and foil wrapper sealing assembly, which fills the packages with saline solution and then heat seals a foil wrapper to the tops of the packaging elements.