

UV lamp for Food and Beverage Industry

Heat treatment-pasteurization techniques - to obtain microbiologically safe and nutritious products are preferred by many product producers. However, pasteurization can change the taste and flavour of such products because of the temperature and processing time.

Reduction of microbial load through UV lamps application as a disinfection medium for food products is being studied. Variables such as flow rate, exposure time, type of fruit product, juice colour and juice composition, need to be studied to obtain fruit products with reduced microbial load, increased shelf life and adequate sensory and nutritional characteristics.

UV technology could be a source for pasteurization of liquids, or disinfection of solid foods as an alternative technology, instead of thermal treatment or application of antimicrobial compounds. UV is a non-chemical process and does not change any physical characteristic of the fluid, and concerns of chemical handling and cost of removal of chlorine from the water stream are eliminated. UV treatment does not promote the generation of disinfection by-products, such as Trihalomethanes (THM), which regulatory agencies have classified as carcinogenic at certain levels in drinking water.

UV lamps are used in the food industry to prolong shelf life, preserve nutritional value, and reduce health hazards by sterilizing pathogens. UV lamps is a safe and cost-effective method that allows for compliance with strict local codes and FDA safety regulations.

