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## **INVESTIGATION OF STEAM CAVITATION DEVICE FOR ILLUMINATION OF CANNED FOOD JUICES**

Fresh juices contain suspended particles of different types and properties depending on the texture structure of the raw material and the method of obtaining juice. They represent a folded polydisperse system that contains large and small suspended particles, colloidal, molecular and ionic-soluble matter. Large suspended particles consist of pieces of pulp and peel, whole and crushed seeds, etc. These particles quickly settle down under the action of gravity and can easily be removed by various methods: separation, settling, filtration.

We conducted research on the use of steam condensation cavitation to illuminate apple juice instead of its usual preheating. In the laboratory, exposure studies were conducted water vapor to illuminate apple juice.

During the injection of a jet of steam during the juice processing occurs its shredding on steam bubbles, which initiate bursts cavitation effects. At the same time there are local differences temperature and pressure on the side of the bubble and juice that affect the soluble and insoluble matter. Illumination of juice occurs at the expense of destruction colloid. The results of the study showed that with increasing temperature the sediment content increases and, as a result, decreases color of juice. However, when you enter more pairs the amount of siege decreases. We can assume that there is peptization siege (reverse transfer of sediment into solution).

### **Conclusion**

The experiments were carried out both before separation, and before settling and Juice filtering indicates an intensification of these processes and increase quality juices cleaned. The greatest effect was obtained at the stage of defending.

### **LITERATURE**

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