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Subject: <b>Citrus juices high pressure homogenisation</b>		



Fruit juices and similar products are certainly regarded as one of the most typical applications of the homogenizing technique.

Given the world-wide use of the homogenization for this kind of products, the demonstration of its usefulness would be almost unnecessary. However, we are hereby going to explain its ways of action.

A number of quite different homogenizing techniques correspond to the wide variety of fruits and their by-products, but,

given some due exceptions, they all allow a single treatment. We wish to state that the fruit juices which undergo the homogenization are always the cloudy ones.

The advantages, mainly the same as for the treatment of other products, are usually a quality improvement, but, in some cases, they can also be economical, for the reasons we will hereafter explain.

### The homogenisation process

It is a wholly mechanical process, obtained by forcing a flow of product through a homogenizing valve.

Due to well-known physical laws, inside the valve they take place some contemporaneous effects of compression, acceleration, and so on, which are the cause of the homogenizing process, that acts by shattering and dispersing the solid and semisolid suspended particles.

In general we can say that. Specifically for fruit juices, the a.m. micronising action is contemporarily exerted on particles of different kind, such as:

- Cells or cells agglomerations.
- Sugar crystalline agglomerations.
- Salt crystalline agglomerations.
- Various structures, which, depending on the various examined fruits, can be