





## Innovative Technological Solution For The Food Industry

# Dispersion, Solubilization And Mixing



Via XXIV Maggio 20 13888 Mongrando (BI) P. IVA: 10341910015

E-mail: info@epic-srl.com

### **Traditional Process**

The aim of mixing is to remove inhomogeneity in a system, and to combine or blend two or more components into a mixture. Usually, in food industry, mechanical mixers are used to mix and solubilize solids into liquids, or to blend two or more fluids.

The purpose of mixing impellers is to transfer the energy provided by the motor to the product, in order to produce the desired mixture, avoiding dead zones.

#### **ROTOCAV Technology And Its Application as an Innovative Mixer**

The installation of an innovative and intensified cavitational system leads to a series of advantages, such as process time saving, safety increase, hold up minimization and hig quality of the final products.

The ROTOCAV technology is a hydrodynamic cavitational system, which promotes a hig mixing effect of the processed phases, at microscopic level. It promotes actions of solid disintegration and deagglomeration. Thanks to the ROTOCAV technology, it is possible to generate homogeneous dispersions, dissolve gases and instantly mix different fluids.

Turbulence, shear stresses, and cavitation intensify traditional processes, optimizing mass transfer and diffusion phenomena.



The system can be easily integrated into the existing processing plants, allowing their intensification with few modifications.

### **Comparison (Traditional Systems vs ROTOCAV Technology)**

TRADITIONAL SYSTEMS	ROTOCAV
Long treatment time	Fast processing time
Some inhomogeneity can occur: low product quality	High effectiveness of treatment: uniformity and high quality of the final product
Limited operative range	Operative flexibility: it works with fluids with different viscosities and / or with solids and gases