Tetra Pak® Ingredients Dissolver

The simple way to dissolve complex ingredients

Application

Tetra Pak® Ingredients Dissolver is in a class of its own for pre-dissolving ingredients especially for energy drinks, sport drinks and ice teas up to 200 cP batch viscosity.

Tetra Pak Ingredients Dissolver has the flexibility to handle pre-dissolving steps of single ingredients under special conditions separate from the main blend. The unit is designed for wet applications. Any powdered ingredients are poured directly into the liquid, which reduces the release of dust to a minimum and therefore no explosion protection measures are needed. Ingredient containers in all sizes and forms can either be introduced via the tank top opening or aspirated on floor level by the optional suction spear powered by an injector vacuum. The patented injector technology also allows the dissolving of challenging ingredients such as stabilisers, gums or thickeners.

Tetra Pak Ingredients Dissolver is applicable in every make of beverage line and also in combination with:

- Tetra Pak® Mixer RJCI 4X
- Tetra Pak® Preparation System B
- Tetra Pak® Mixer RJCI B

Tetra Pak Ingredients Dissolver can also be used as a stand-alone unit on pilot scale to start innovating with new recipes.

A typical application can be:

- Dissolving taurine, dextrose or other ingredients fed in from sacks.
- Isolated dissolving of single ingredients taking into consideration specific conditions such as acidity, sweetness or other requirements.
- Emptying of liquid concentrate containers into a downstream line.

Working principle

Tetra Pak Ingredients Dissolver is equipped with a centrifugal pump that recirculates water added inside the 250-litre tank. A Radial Jet Mixer creates turbulence inside the tank which dissolves the added ingredients. The radial jet mixer technology leads to fast dissolving with high product quality and time-savings even for challenging ingredients. Tetra Pak Ingredients Dissolver is operated using the push buttons next to the tank to activate and deactivate the features incorporated into this unit. A hygienic design allows all components to be fully cleaned during CIP and also gives a reduced risk for microbiological issues or cross-contamination.

Technical data

All parts in contact with the product are made of AISI 316L. The pipe supports are made of AISI 304L. The product viscosity limit for the batch is 200 cP.

Available in a standard size of 250 litres.

Electrical power Other supply voltage or frequency available	5.5 kW - 400 V, 50 Hz
Treated water	300 kPa (3 bar)
Compressed air	600 kPa (6 bar)

Example layout

Measurements on request.

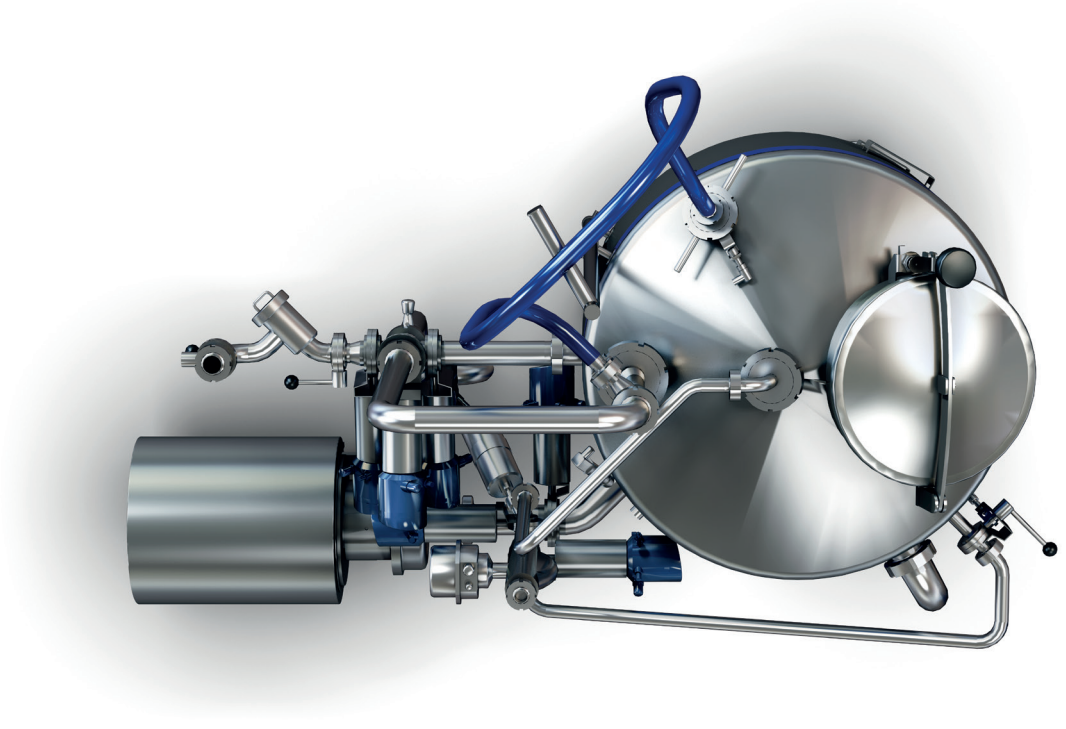
Options

An optional washing function can be used to rinse out the last residues of ingredients attached to the side of a container. This reduces any losses of valuable ingredients. While using the pressure of the incoming rinsing water, the remaining concentrate inside the container can be forced out, resulting in shorter emptying times.

An optional suction spear that is powered by an injector vacuum allows powders, liquids, gums, thickeners and stabilisers to be aspirated and dissolved after passing a mixing device.

Highlights

- Dump lumpy ingredients directly into liquid without concern over clogging. No more fisheyes and dry powder capsules.
- Radial jet mixer technology enables efficient and flexible mixing with no foaming or sinking of powder particles to the bottom.
- Patented injector technology enables dissolving of challenging ingredients.
- Suction spear for wet and dry application for a variety of packaging formats.
- Grid over the tank top opening protects the equipment from larger foreign bodies.
- Simple installation and easy access at ground level for maintenance.
- Less equipment – a single pump can be used for transfer, mixing and CIP return.
- Low space requirement.
- Plug and clean. All components fully cleaned during CIP.



Control cabinet and control panel

Delivered without a control cabinet and HMI. Tetra Pak Ingredients Dissolver must be integrated at plant level for electrical and automation control.

Main components

- 250-litre tank
- Radial Jet Mixer
- Recirculation pump
- Set of manual and pneumatic valves
- Flow meter (optional)
- Suction spear (optional)
- Injector with mixing device (optional)
- Washing function (optional)

Note! Ingredients that are difficult to dissolve are always aspirated through the optional suction spear and not through the tank top opening.

Tetra Pak®
PROTECTS WHAT'S GOOD