

Tetra Pak® Industrial Protein Mixer

# Boost efficiency with foamless liquid protein mixing.



## Food protein processing is a growth area.

New protein sources and product categories are constantly entering the market. Tetra Pak® Industrial Protein Mixer gives you the confidence to grasp this market opportunity. It is a future-ready solution designed for all production scenarios.

This ground-breaking mixer solves the problem of foaming when mixing any liquid food protein source, including high-viscous ingredients. Tetra Pak® Industrial Protein Mixer combines a unique suite of technological features to eliminate expensive product losses caused by foaming. It raises product quality in protein food and beverage processing and reduces downstream equipment cleaning and maintenance.

## Real-life challenge solved.

Protein foaming issues at a large nutritional products plant were costing one global food producer lost production and excessive downtime. Our experts developed Tetra Pak® Industrial Protein Mixer to prevent air entering the mixer and remove excess air during mixing. The result: no unwanted foaming and minimal product losses. It was, in the customer's words,

***“Simply fantastic –  
the best result we’ve ever seen.”***

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# Evolve as new protein sources emerge.

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## Today

### Dairy

Whey and casein used for meal replacements, high-protein yoghurts, infant formula, etc.

## Today

### Plant-based

Soy, almond, oat are well established. Pea, rice, hemp, mountain peanut (sacha inchi) are emerging. Similar products to dairy category.

## Tomorrow

### Future food

Insects and algae (spirulina) are already in the market. Synthetic biology sources (self-producing animal cells) and new food proteins.

### Save time, money and resources.

Foam overflow during mixing causes an estimated €100,000 of product losses annually for an industrial protein processor.\* This figure more than doubles when adding foaming-related product losses from burn-on during heat treatment, higher cleaning costs, and elevated spare parts and maintenance costs due to downstream equipment cavitation. You can avoid these costs by controlling foaming at every step with Tetra Pak® Industrial Protein Mixer.

### How it works.

Powder ingredients are added to a feeding hopper and transported into the mixer by vacuum. Liquid ingredients enter the mixer gently via a tangential inlet and blend with the powder under agitation.

A dynamic baffle disrupts the mix vortex, eliminating unwanted air incorporation and foaming. Data from sensors monitoring the foam layer is automatically used to adjust vacuum intensity to maximize deaeration. Mixed product passes downstream via a patented outlet filter.

### Quick facts

- Fully automated, with advanced sensor-based control
- Multiple models for scaling according to need
- Capacities from small batches to 50,000 litres per hour

\* Typical production scenario based on customer data from protein powder installations. Assumes 300 working days per year.