



## Tetra Alex<sup>®</sup> 200

Homogenizer or high-pressure pump for liquid food applications



### Application

The Tetra Alex homogenizers offer efficient homogenization of emulsions and suspensions and are also available as high-pressure pumps.

**Dairy.** Pasteurized milk, UHT milk, cream, yoghurt, condensed milk, ice cream mix.

**Beverages.** Fruit juices, concentrates, purées, tomato products.

**Prepared food.** Dressings, ketchups, infant formula, liquid egg, mayonnaises, sauces, gravies, etc.

### Working Principle

The product is pumped under high pressure into the homogenizing device. In the device the product is forced through a small annular gap where the pressure transforms into high velocity. Extreme turbulence and cavitation effectively reduce the size of liquid droplets and solid particles.

### Design

Tetra Alex 200 is basically a horizontally mounted, 3-piston positive displacement pump with a built-in homogenizing device.

**Drive system.** Power transmission from the motor via V-belts and pulleys through external shaft-mounted reduction gearbox.

**Crank case.** High-quality cast iron housing. All bearings and cross-heads are splash lubricated. Fully immersed oil cooler.

**High-pressure pump block.** One-piece forged stainless steel block with quick change piston seal cartridge system, fully replaceable suction and discharge valve seats. Pistons of hardened stainless steel and piston seals for working temperatures up to 85°C. Versatile turnable disc type valves for production of both low- and high-viscous products, fully replaceable suction and discharge valve seats. Closed cooling water system for minimized consumption. Pump block is designed for aseptic processing. Pulsation dampers are included. Hygienic heavy duty clamp connections.

**A warranty of 5 years on the block against cracking.**

# Tetra Alex 200

## Homogenizing device

Homogenization with hydraulic pressure setting. Wear resistant homogenizing device of cobalt carbide. Reversible seat & forcer disc for double lifetime and low service cost.

## Control system

Hydraulic pressure actuation unit fitted within frame. Hydraulic valves for pressure setting on front panel. Safety valves included. Electrical emergency switch and on/off push buttons. Terminal box. Analogue pressure indication in front panel. Cooling water valve (solenoid).

## Housing

Stainless steel covers with window in front hood for easy inspection during running. Easy-to-open hood for fast service access to product wetted parts.

## High-pressure pump

The machine is delivered with an automatically controlled and cleanable line pressure relief valve on the outlet.

## Dimensions

Depth, mm: 1 535  
Width, mm: 1 310  
Height, mm: 1 680  
Service area, mm: 3 200 x 2 900  
Service height, mm: 2 200

## Environment

Indicators	Non aseptic	Aseptic
Energy consumption /1 000 l product (kWh)	4.6	8.2
Water consumption /1 000 l product (l/h)	20	100
Possible cooling water to recirculate (% of total)	56	100
Steam consumption /1 000 l product (kg/h)	N/A	5.8
Noise, dB(A)	71	71
Carbon footprint /1,000 l product (kgCO <sub>2</sub> )	2.3	4.8

Data based on

- Non-aseptic design: pasteurized white milk at max capacity, 140 bar
- Aseptic design: UHT, white consumption milk at max capacity, 250 bar
- Noise in accordance with ISO 11203, distance 2 metres
- CO<sub>2</sub> emissions are based on electricity production generating 0.5 kg CO<sub>2</sub>/kWh (world average), and steam production from natural gas.

## Technical data

### Capacity/pressure range

Pressure, bar (psi)	Max. capacity, l/h (gph)
400 (5 800)	2 600 (700)
315 (4 600)	3 400 (900)
250 (3 600)	4 300 (1 130)
200 (2 900)	5 500 (1 450)
160 (2 300)	6 800 (1 790)

## Shipping data

No motor	22kW/30hp	37kW/50 hp
1070 kg	1215 kg	1280 kg

Export packing add 450 kg. Shipping volume 6.5 m<sup>3</sup>.

## Optional equipment

- 2nd stage homogenizing device
- Cooling water valve, pneumatic
- Aseptic design
- Wear parts in other design and material adapted to the application
- Various remote control functions
- Machine control equipment
- Noise reduction
- Spare parts kit