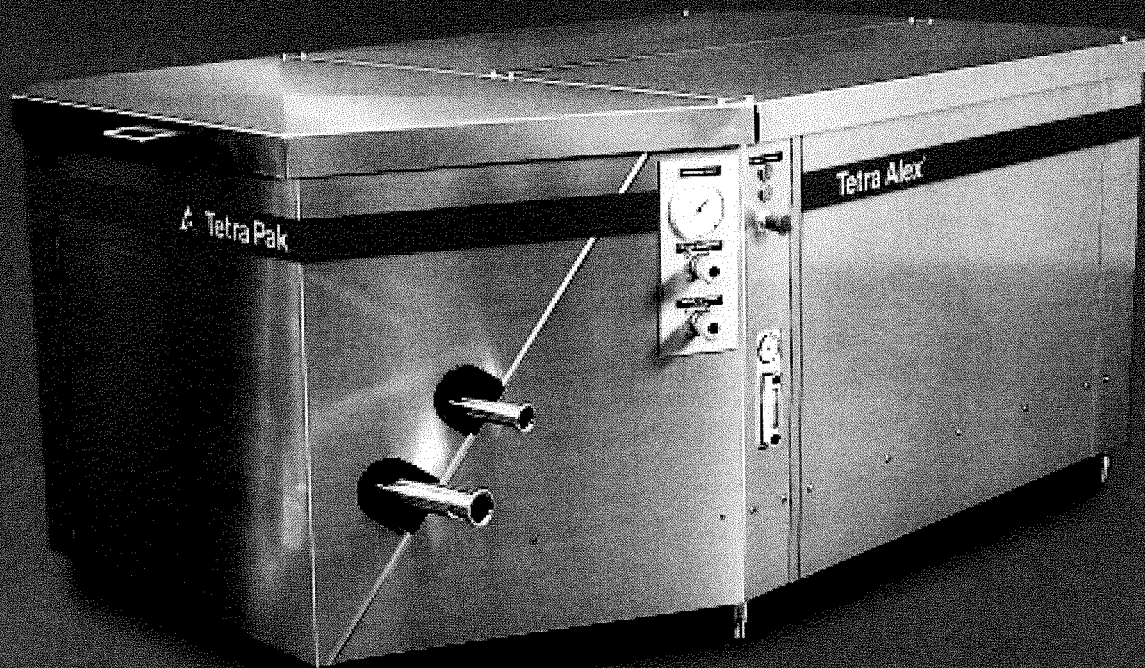


# Tetra Alex<sup>®</sup> 25

Homogenizer or high pressure pump for liquid food applications



*Tetra Alex 25 as homogenizer. The machine is equipped with optional equipment.*

## Application

High pressure homogenization of emulsions and suspensions. Available also as high pressure pump.

**Dairy.** Pasteurised milk, UHT milk, cream, yoghurt, condensed milk, ice cream mix etc.

**Beverage.** Fruit juices, concentrates, purées, tomato products etc.

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

## Working principle for homogenizer

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

The Tetra Alex 25 is basically a horizontally mounted 3-piston positive displacement pump with built in homogenizing device.

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

**Drive housing.** High quality cast iron housing. All bearings and crossheads 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 temperature up to 85°C as standard. Versatile mushroom type valves for production of both low- and high viscous products. Symmetrical valve seats for double life-time. Closed cooling water system. The pump block is designed for aseptic processing.

Pulsation dampers are included as standard. Hygienic heavy duty clamp connections.

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

**Homogenizing device.** Homogenization with hydraulic pressure setting. Wear resistant homogenizing device of stellite material (Rex Alloy). Reversible seat with impact ring for double lifetime and grindable forcer.

**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).

### Capacity / pressure range

Pressure, bar (psi)	Max. capacity, l/h (gph)
400 (5 800)	5 000 (1 320)
315 (4 600)	6 200 (1 650)
250 (3 600)	8 000 (2 110)
200 (2 900)	10 000 (2 630)
160 (2 300)	12 600 (3 340)

**Housing.** Stainless steel housing. Easy-to-open front hood for easy service access to product wetted parts. Back hood for inspection and service of drive end.

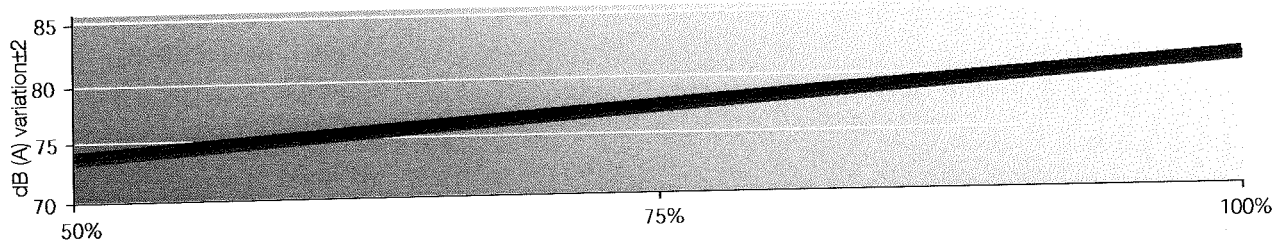
**High pressure pump.** The machine is delivered without homogenizing device, hydraulic unit and damper on the outlet. Rupture disc on the product outlet. At too high pressure the disc breaks, releasing the pressure.

### Motor size

One/ two speed:  $\frac{\text{Capacity l/h (gph)} \times \text{Pressure bar (psi)}}{30\ 600 (87\ 400)} = \text{kW (hp)}$

Variable speed:  $\frac{\text{Capacity l/h (gph)} \times \text{Pressure bar (psi)}}{26\ 010 (74\ 700)} = \text{kW (hp)}$

### Noise level



Noise pressure level measured according to ISO 3746, distance 1 m (40") free field sound level.

Actual level will vary depending on individual characteristics and installation.

Peak sound pressure at operator station: < 63 Pa (130 dB (C)).

### General dimension

	Homogenizer		Pump	
	160-250 bar	315-400 bar	160-250 bar	315-400 bar
Inlet pipe diameter, mm	76 (3")	51 (2")	76 (3")	51 (2")
Outlet pipe diameter, mm	51 (2")	38 (1,5")	49 (1,9")	38 (1,5")

General dimension, mm: 2240 x 1400 x 1080

Service area, mm: 3840 x 3000

Service height, mm: 1500

### Service media consumption

	Non Aseptic	Aseptic
Cooling water (>300 kPa (40 psi), max 25°C (77°F), hardness <10° dH)	220* (58)**	585 (155)
Steam, (>300 kPa (40 psi), dry and saturated)	-	25 kg /h (55 lbs/h)

\* l/h \*\*gph

### Shipping data

	45kW/60 hp	75 kW/100 hp
No motor	1 695 kg	1 925 kg
		2 285 kg

Export packing add 500 kg. Shipping volume 9,2 m<sup>3</sup>.

### Options

- pistons in other materials
- v-packings
- 2nd stage homogenizing device
- homogenizing device in other material
- cooling water valve pneumatic
- aseptic condenser, solenoid or pneumatic steam valve
- remote indication of hydraulic pressure
- remote indication of product pressure
- remote on/off setting of hydraulic pressure
- remote continuous setting of hydraulic pressure
- control equipment:
  - oil temperature, LL/HL oil transmitter
  - automatic cooling water regulation
- crankshaft speed sensor
- spare part kits
- UPS (Uninterrupted Power Supply) connection

