

# Tetra Alex<sup>®</sup> S05

Homogenizer for liquid food applications



*Tetra Alex S05 homogenizer*

## Application

High-pressure homogenization of emulsions and suspensions.

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

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

**Prepared food.** Dressings, ketchups, 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.

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## Design

Tetra Alex S05 is basically a horizontally mounted 3-piston positive displacement pump with built-in homogenizing device. The machine is designed for aseptic conditions.

## Drive system

Power transmission from the motor via V-belts and pulleys to the crankshaft.

## Crank case

High-quality cast iron housing. All bearings and crossheads are splash lubricated.

## High-pressure pump block

Forged stainless steel block with quick change piston seal cartridge system, fully replaceable suction- and discharge valve seats. Solid ceramic pistons and V-packings for working temperatures up to 140°C as standard. Mushroom valves of hardened stainless steel. Closed cooling water system.

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

## Homogenizing device

Two stage homogenization with hydraulic pressure setting. Wear resistant homogenizing device of Cobalt carbide (stellite). Reversible seat and 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. Electrical emergency switch and on/off push buttons. Terminal box. Analogue pressure indication. Cooling water valve (soleonid) actuated with drive motor.

## Housing

Stainless steel cover.

## Dimensions

	Homogenizer
	250-400 bar
Inlet pipe diameter, mm	16 (0.63")
Outlet pipe diameter, mm	14 (0.55")

Overall dimension, mm: 866 x 543 x 1 020

Service area, mm: 2 700 x 2 500

Service height, mm: 1 500

## Technical Data

### Capacity/pressure range

Pressure, bar (psi)	Max, capacity, l/h (gph)
400 (5 800)	270 (70)
250 (3 600)	500 (130)

### Service media consumption

	Aseptic
Cooling water (>300 kPa (40 psi), max 25°C (77°F), hardness < 10° dH)	275 l/h (75 gph)
Steam (>300 kPa (40 psi), dry and saturated)	20 kg/h (5 lbs/h)

## Motor size

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

## Shipping Data

No motor	1.1 kW/1.4 hp	4 kW/5.3 hp
300 kg	315 kg	330 kg

Export packing add 150 kg. Shipping volume 1.6 m<sup>3</sup>.

## Optional Equipment

- cooling water valve, pneumatic
- remote indication of hydraulic pressure
- remote indication of product pressure
- remote on/off setting of hydraulic pressure
- spare parts kit

