

Tetra Alex[®] 2

Homogenizer for liquid food applications



Tetra Alex 2 homogenizer

Application

High-pressure homogenization of emulsions and suspensions.

Non-abrasive products:

Dairy. Pasteurised milk, cream, yoghurt, etc.

Beverages. Fruit juices, nectars

Working Principle

The product is pumped under high pressure into the homogenizing device and forced through a small annular gap, where the pressure is transformed into high velocity.

Extreme turbulence and cavitation effectively reduce the size of liquid droplets and solid particles.

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Design

Tetra Alex 2 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 to the crankshaft.

Crank case

High-quality cast iron housing. All bearings and crossheads are splash lubricated. Fully immersed stainless steel 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. Chromium plated pistons and piston seals for working temperatures up to 85°C. Mushroom valves, closed cooling water system and pulsation dampers are included as well as hygienic heavy-duty clamp connections.

A warranty of 5 years on the block against cracking.

Homogenizing device

Homogenizing device with integrated second stage, hydraulic pressure setting. Wear-resistant homogenizing device of cobalt based alloy material. Reversible seat with impact ring and reversible forcer disc for double lifetime.

Control system

Hydraulic pressure actuation unit fitted within frame. Hydraulic valve for pressure setting on front panel. Safety valve included. Electrical emergency switch and on/off push-buttons. Analogue pressure indication. Cooling water valve (solenoid) actuated with drive motor. Remote on/off setting of hydraulic pressure included. Y/D starter panel integrated in frame.

Housing

Stainless steel covers.

Technical Data

Service media

Cooling water: 100 l/h (>300 kPa (40 psi), max 25°C (77°F), water hardness <10°dH), ambient temperature 30°C.

Dimensions

Overall dimensions (l x w x h), mm: 1 435 x 1 280 x 1 390

Service area, mm: 2 600 x 2 200

Service height, mm: 1 840

Capacity/pressure range

Pressure - bar	Capacity - l/h	Motor -kW	Piston diam. - mm	Inlet diam. - mm	Outlet diam. - mm
200	2 000	15	28	38	25
200	3 000	22	36	51	38
200	4 000	30	40	51	38
200	5 000	37	45	51	38
160	6 500	37	50	51	38

Environment

Energy consumption/1 000 l product (kWh)	4.6
Water consumption/1 000 l product (l/h)	20
Noise, dB(A)	76

Environment-related data based on pasteurised milk 5 000 l/h at 140 bar.

Shipping Data

Net weight, 37 kW/50 hp: 1 250 kg.

Export packing: add 350 kg.

Shipping volume: 5.3 m³.

