



Alfa Laval CM overflow malaxer

Malaxers for continuous olive oil extraction

Introduction

Malaxing machines are covered and jacketed holding tanks in which olive paste is continuously agitated at a controlled temperature.

CM malaxers are normally used in high volume, industrial style olive oil extraction lines where robustness and continuous operation are key considerations.

Application

Malaxing is a crucial step in the olive oil extraction process, because it plays a major role in determining the quality and quantity of the product obtained. The combination of time and temperature affects the enzymatic activity responsible for the release of the oil. Together with the amount of oxygen in contact with the paste, this greatly influences the product obtained from the olives.

Benefits

- Heat transfer configuration that protects oil quality.
- Mechanical reliability that keeps operating costs down.
- Designed for easy cleaning.

Design

Each malaxer features independent gear motor, paste temperature measurement and a dedicated hot water pump to circulate water through the jacket at adjustable speed.

Malaxers are fitted with a cover with a safety micro switch and a grated inspection window. Level probe on the bottom malaxer tank and discharge manual valves are included as well as stairs for operators.

All parts of the jacket vessel that come in contact with the product are made of stainless steel. Support frame in FE 360 painted RAL 9006.

Working principle

The malaxing process consists of a slow stirring of the paste while it is being heated. This combination causes the microscopic oil and water drops to coalesce, forming



increasingly larger drops which are recovered in a horizontal decanter centrifuge.

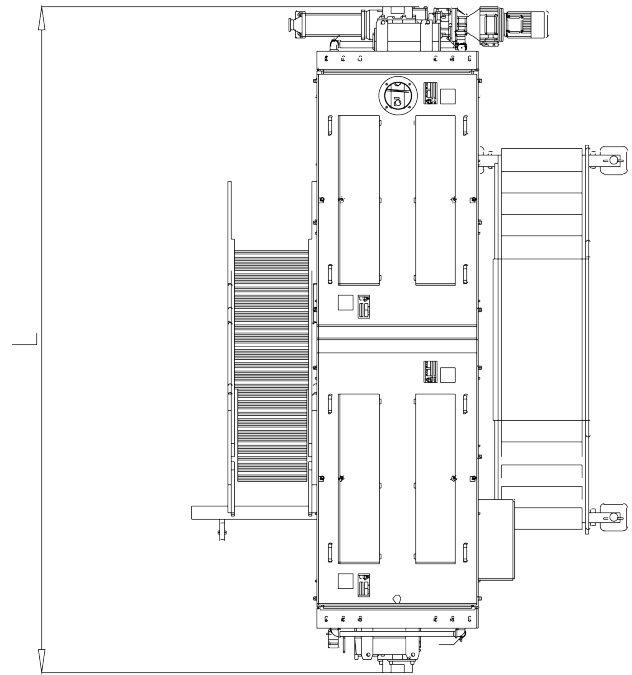
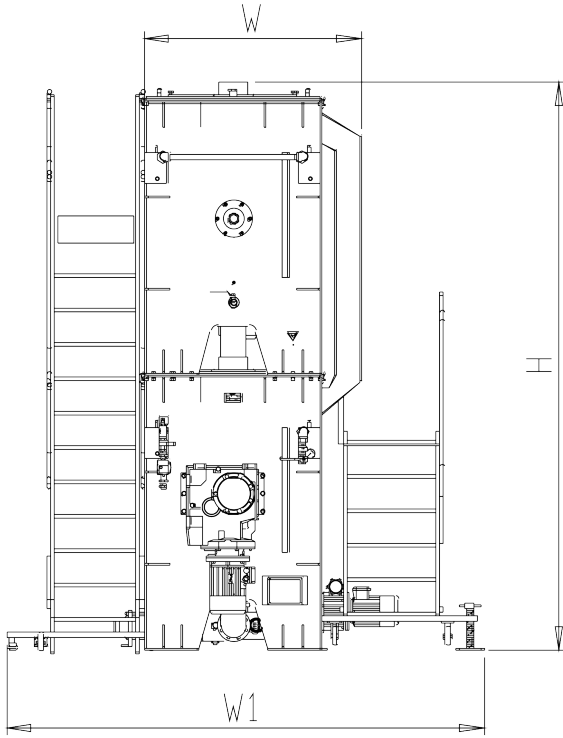
The malaxing temperature and time are both carefully controlled.

The number and size of malaxers is based on capacity requirements and desired malaxing time. Two malaxer tanks are normally used in series on top of each other, although a single malaxer can be used to upgrade an existing extraction line.

The malaxers are arranged so that the paste continuously overflows from one to the other by gravity.

Each malaxer has its own shaft with a specially designed agitator, that constantly blends the paste while also continuously removing paste from the vessel wall to prevent overheating.

Hot water is circulated through the jacket of each malaxing vessel to control the temperature of the paste. Paste from the final malaxer is pumped to a horizontal decanter centrifuge for oil recovery.



Technical data	CM2502		CM4002	
Shipping data	kg	lbs	kg	lbs
Tare weight	2,500	5,512	3,320	7,319
Weight with full load (fruit and water)	7,620	16,799	11,648	25,679
Sound pressure level dB	< 70 dB	< 70 dB	< 70 dB	< 70 dB
Installed power kW	5.5 kW	5.5 kW	5.5 kW	5.5 kW

Dimensions	CM2502		CM4002	
	mm	inches	mm	inches
Length (L)	3,650	144	4,914	193
Width (W)	1,461	58	1,461	58
Width (W1)	3,218	127	3,218	127
Height (H)	3,826	151	3,826	151
Capacity litres/gallons	5,120 litres	1,353 gallons	8,328 litres	2,200 gallons

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