



Alfa Laval Olive cleaning and washing

Cleaning and washing sections for olive oil extraction plants



Introduction

The olive cleaning and washing section removes leaves, dirt, stones and other heavy extraneous objects before the olives enter the first part of the olive oil extraction process, the crushing stage. Leaves and twigs are sucked out by an exhaust fan, while dirt and heavier objects are removed using water.

Application

In the olive oil extraction process it is very important to clean the olives properly in order to guarantee suitable conditions to obtain the best possible product.

Benefits

Properly cleaned olives will ensure the longevity and performance of the other plant equipment in the olive oil mill.

Design

Alfa Laval supplies four standard types of washing sections, depending on capacity requirements and the degree of automation:

- Compact washer
- Standard washer
- Special soft washer
- Special automatic washer

Alfa Laval washing sections are made of stainless steel throughout, and are built for strength and reliability. They are designed for efficient cleaning of the olives, while safeguarding the integrity of the fruit.

Easy-access doors enable the operator to quickly and easily empty and clean the machine.

Working principle

Olives are placed in a reception hopper and transported upwards by a belt conveyor. At the top of the belt conveyor the olives pass the defoliator/delefer step where an air flow generated by an exhaust fan sucks away any leaves, twigs and other light-weight material and discharges it through a duct.

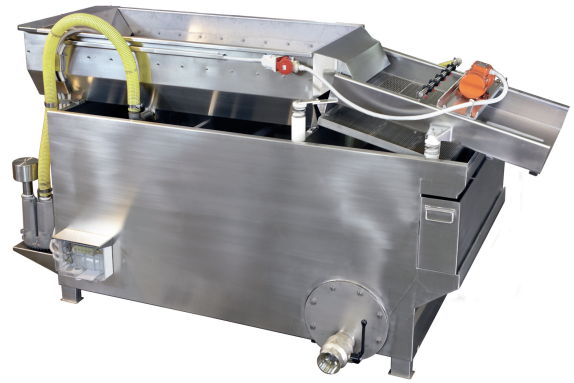
From the top of the belt (for compact and standard washers), the olives drop into a hydraulic jet hopper where a water jet carries the olives to the washing machine. In the special washers, the olives drop into an aerated hopper located together with the washing machine. The air bubbles transport the olives forwards in the process.

The washing machine is the water reservoir for the section. Here the olives pass across a vibrating screen that separates the water and any remaining leaves. The vibrating screen contains a water shower that uses clean water to give the olives a final rinse.

The washing water is decanted into the reservoir of the washing machine and recirculate within the process. Clean water is continuously added as a supplement. Washing water is changed at regular intervals.

Dirt and stones accumulate in the bottom of the washing machine reservoir and must be removed manually on a regular basis.

In the special automatic washer, however, a designated conveyor automatically discharges dirt and stones from the equipment.



Special soft washer



Special automatic washer



Compact washer with defoliator

Technical data

Compact washer with defoliator

Shipping data	kg	lbs
Tare weight	650	1,433
Weight with full load (fruit and water)	1,700	3,748
Sound pressure level	78.5 dB	78.5 dB
Installed power	3.48 kW	3.48 kW
Dimensions	mm	inches
Length (L)	3,895	153.3
Width (W)	1,415	55.7
Height (H)	1,545	60.8
Approx. capacity (kg/h) ¹	1,000	1,000
Water consumption (liter/day) ²	1,600	1,600

¹ Capacity depends on the characteristics of the olives and how dirty they are

² Consumption figure is approximate and based on one daily change of washing water

Standard washer with defoliator

Shipping data	kg	lbs
Tare weight	1,070	2,359
Weight with full load (fruit and water)	3,500	7,716
Sound pressure level defoliator	88.5 dB	88.5 dB
Sound pressure level washer	77.0 dB	77.0 dB
Installed power	6.67 kW	6.67 kW
Dimensions	mm	inches
Length (L)	6,341	249.6
Width (W)	1,539	60.6
Height (H)	1,700	66.9
Approx. capacity (kg/h) ¹	2,000	2,000
Water consumption (liter/day) ²	2,800	2,800

¹ Capacity depends on the characteristics of the olives and how dirty they are

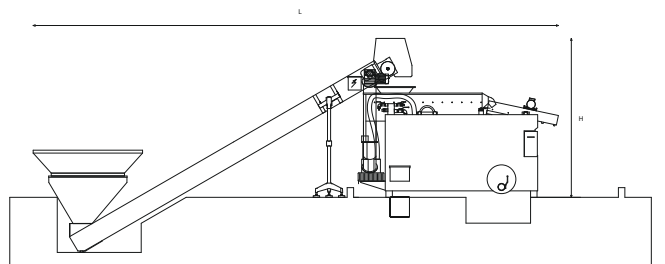
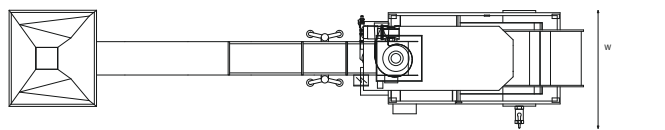
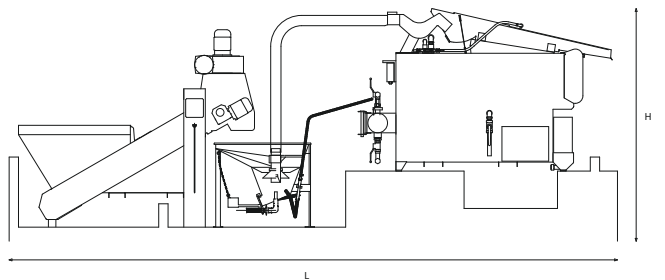
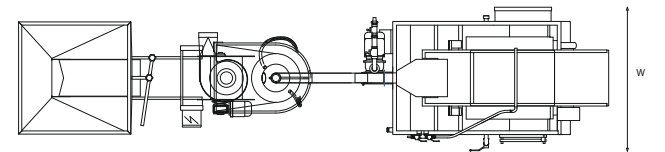
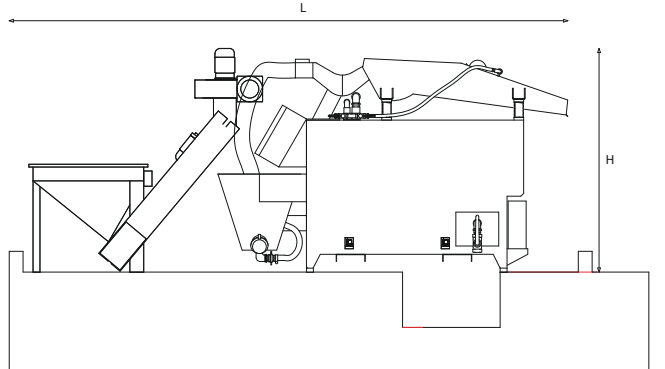
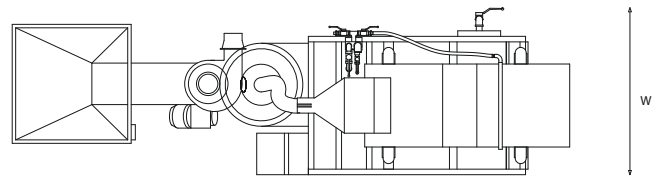
² Consumption figure is approximate and based on one daily change of washing water

Special soft washer with defoliator

Shipping data	kg	lbs
Tare weight	1,320	2,910
Weight with full load (fruit and water)	3,445	7,595
Sound pressure level defoliator	88.5 dB	88.5 dB
Sound pressure level washer	77.0 dB	77.0 dB
Installed power	9.06 kW	9.06 kW
Dimensions	mm	inches
Length (L)	8,133	320.2
Width (W)	1,856	73.1
Height (H)	2,200	86.6
Approx. capacity (kg/h) ¹	5,500	5,500
Water consumption (liter/day) ²	3,000	3,000

¹ Capacity depends on the characteristics of the olives and how dirty they are

² Consumption figure is approximate and based on one daily change of washing water

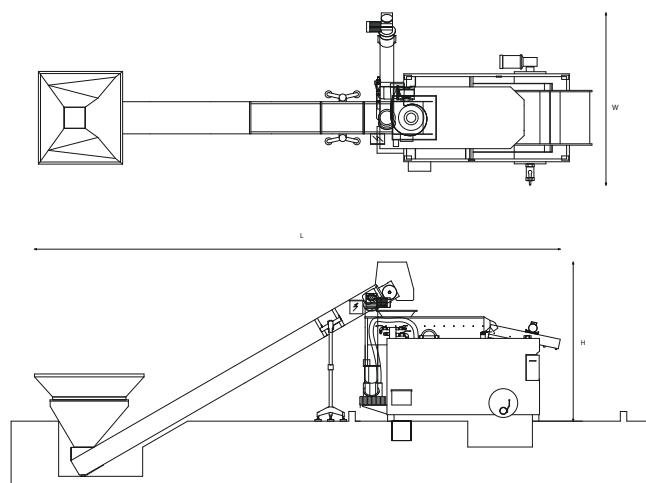


Special automatic washer with defoliator

Shipping data	kg	lbs
Tare weight	1,375	3,031
Weight with full load (fruit and water)	3,925	8,653
Sound pressure level defoliator	88.5 dB	88.5 dB
Sound pressure level washer	77.0 dB	77.0 dB
Installed power	11.30 kW	11.30 kW
Dimensions	mm	inches
Length (L)	8,133	320.2
Width (W)	2,452	96.5
Height (H)	2,200	86.6
Approx. capacity (kg/h) ¹	5,500	5,500
Water consumption (liter/day) ²	3,000	3,000

¹ Capacity depends on the characteristics of the olives and how dirty they are

² Consumption figure is approximate and based on one daily change of washing water



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