



Olive cleaning and washing

Cleaning and washing sections for olive oil extraction plants



The Alfa Laval standard washing system

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. Introducing clean olives into the process also means the machinery in the extraction line is protected from excessive wear and tear.

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.

Other washing sections can be supplied upon request.

Application

The purpose of the washing section is to remove leaves, dirt, stones and other heavy extraneous objects before the olives enter the first part of the processing line, the crushing stage.

The leaves and other lightweight items are sucked out by an exhaust fan, while dirt and heavier objects are removed using water.

Design, features and benefits

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.

Special attention has been given to effective cleaning and maintenance. Easy-access doors enable the operator to quickly and easily empty and clean the machine.

Working principles

Olives are placed in a reception hopper from where they are transported upward by a belt conveyor. At the top of the belt conveyor is the defoliator/deleafer step, consisting of a fan that sucks the leaves and light material away from the olives and discharges this debris through a suitable duct.

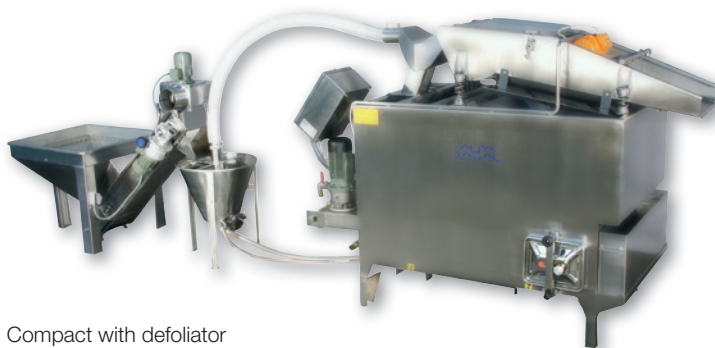
From the top of the belt (in the case of the compact and standard washers), the olives drop into a hydraulic jet hopper where a water jet carries the olives to the washing machine. In both types of special washers, the olives drop into an aerated hopper located together with the washing machine. The bubbles produced by the air cause the olives to continue forward in the process.

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

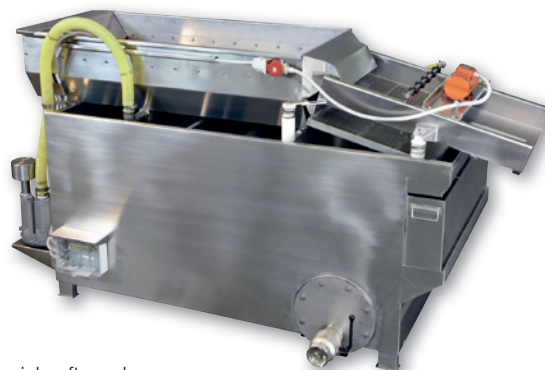
The washing water is decanted into the reservoir of the washing machine and circulated within the process. Clean water is continuously added to supplement the water circulating around. The whole charge of washing water must be changed at regular intervals.

Dirt and stones accumulate in the bottom of the washing machine reservoir and (in the case of the compact, standard and special soft washers) must be manually removed on a regular basis.

The special automatic washer features a dedicated conveyor that automatically discharges this material from the equipment.



Compact with defoliator



Special soft washer



Special automatic washer

Technical specifications

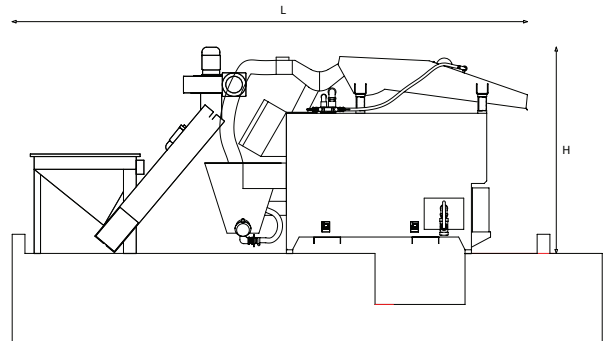
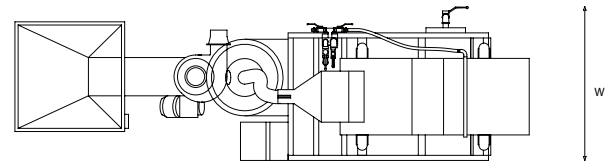
Compact Washer with defoliator

Shipping data	kg	lbs
Tare weight	650	1,433
Weight with full load (fruit and water)	1,700	3,747.9

Sound pressure level	78.5 dB
Installed power	3.48 kW

Dimensions	mm	inch.
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
Water consumption (liter/day) ²		1,600

- 1) Capacity depends on the characteristics of the olives and how dirty they are
- 2) Consumption is indicative and calculated with one replacement of washing water per day



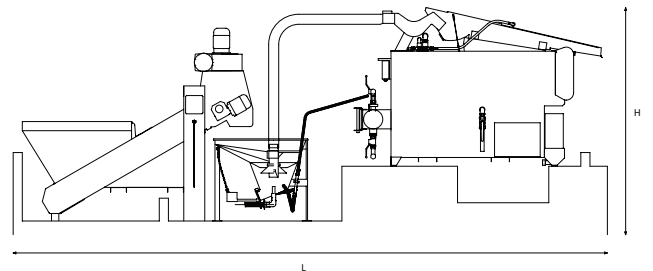
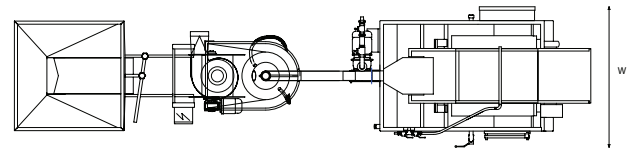
Standard washer with defoliator

Shipping data	kg	lbs
Tare weight	1,070	2,358.9
Weight with full load (fruit and water)	3,500	7,716.2

Sound pressure level defoliator	88.5 dB
Sound pressure level washer	77.0 dB
Installed power	6.67 kW

Dimensions	mm	inch.
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
Water consumption (liter/day) ²		2,800

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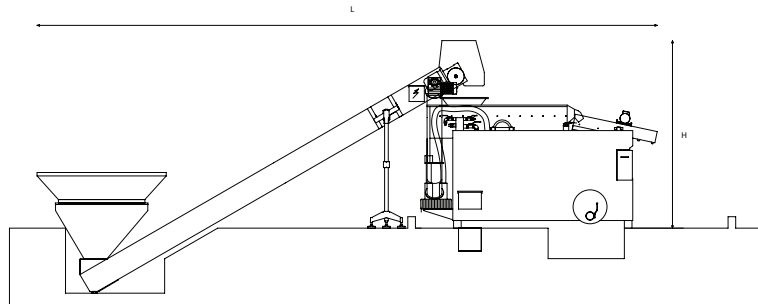
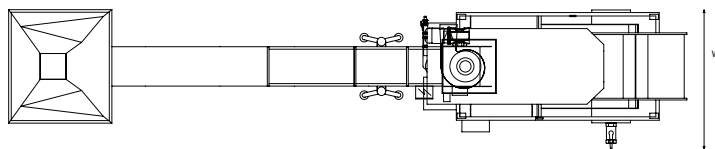
Special Soft washer with defoliator

Shipping data	kg	lbs
Tare weight	1,320	2,910.1
Weight with full load (fruit and water)	3,445	7,594.9

Sound pressure level defoliator	88.5 dB
Sound pressure level washer	77.0 dB
Installed power	9.06 kW

Dimensions	mm	lbs
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
Water consumption (liter/day) ²		3,000

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- 2) Consumption is indicative and calculated with one replacement of washing water per day



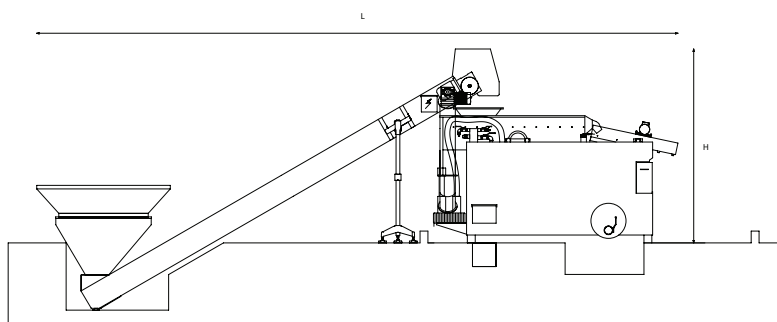
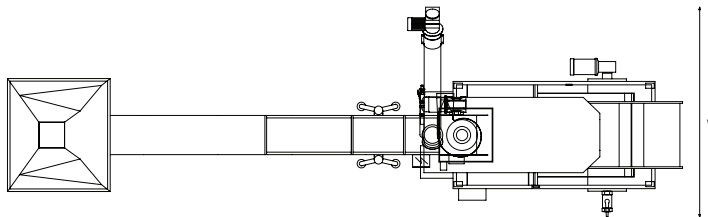
Special Automatic washer with defoliator

Shipping data	kg	lbs
Tare weight	1,375	3,031.3
Weight with full load (fruit and water)	3,925	8,653.1

Sound pressure level defoliator	88.5 dB
Sound pressure level washer	77.0 dB
Installed power	11.30 kW

Dimensions	mm	inch.
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
Water consumption (liter/day) ²		3,000

- 1) Capacity depends on the characteristics of the olives and how dirty they are
- 2) Consumption is indicative and calculated with one replacement of washing water per day



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Alfa Laval reserves the right to change specifications without prior notification.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com.