



LEAF REMOVAL
& WASHING



 **PIERALISI**
CIRCULAR THINKING





Leaf removal and washing

The first step in the olive processing cycle for olive oil and by-products involves removing the leaves and washing the olives. These operations are key to obtaining a quality product.

Having machinery capable of eliminating impurities and keeping drupes intact in the purest form is an added value that will be reflected in the end results of the oil mill processing cycle.

Pieralisi: innovation and know-how dedicated to quality since 1888

Passion, tradition and innovation. These have been the core values of the Pieralisi Group since 1888, when its first workshop opened in the small town of Monsano. Today, the Pieralisi Group is the world leader in providing state of the art separation solutions using centrifugal force.

Pieralisi systems deliver optimal performance - both for **continuous cycle** and **batch processing** - enhancing, on one hand, the quality of the oil, which is even richer in polyphenols and, on the other, making it possible to harness the full potential of the by-products so they can be another source of income for the oil mill.

With Pieralisi Group's long-standing experience in the industry, it is the only one of its kind able to supply its customers, all over the world, with **a turn-key product** for the **entire olive processing cycle**: from leaf removal to washing, to crushing and malaxing, followed by extraction and separation.

The Pieralisi Group continuously invests in innovation. It has filed hundreds of **international patent applications** (25 are currently active), which embody and demonstrate its commitment to the research and development of new technologies.





Safety and assurance for excellent results



Safety and assurance play an increasingly important role in a world where mechanical engineering is becoming increasingly complex.

This is why Pieralisi, UNI EN ISO 9001 and UNI EN ISO 14001 certified, takes great care in the design and manufacture of its machinery in accordance with quality assurance and safety standards to ensure compliance with key directives such as the Machinery Directive 2006/42/EC, the Low Voltage Directive 2014/35/UE, the Electromagnetic Compatibility Directive 2014/30/UE and the ATEX Directive 2014/34/UE.

The control panels, designed in accordance with strict quality and safety standards, are custom built in order to meet the specific requirements of each stage of the production process.

Oil mill operations are facilitated by the highly intuitive devices and the correlation between the panel and system which is simple and easy to understand, focusing in particular on the safety indicators. Pieralisi's advanced control systems can be linked to other machinery at the oil mill to create an extensive digital network and are also set up for remote communication, if desired. Pieralisi issues CE certification pertaining to the entire oil milling system during installation which is further proof of the attention it pays to the needs of the oil miller and its company.





Leaf removal and washing

High quality olive oil starts with clean and healthy olives. The modern harvesting systems used today speed up operations, but they also increase the amount of twigs, leaves, soil and other impurities in the crates of olives brought to the mill. This can be detrimental to the wholesomeness and the organoleptic characteristics of the oil, and also cause damage or early wear to machinery.

The Peralisi Group has designed a unique solution to ensure maximum cleanliness while keeping the drupe in perfect condition. The wide range of twig and leaf removers are capable of cleaning olives whilst minimising impacts and the resulting damage caused by violent blows. Peralisi also stands out from its competitors in terms of the care and attention it devotes to the washing process. What makes its washing machines unique is the air system which keeps the olives suspended in the water at all times so that they get clean and there is no risk of crushing.

All parts in contact with the product are made of stainless steel to ensure durability, reliability and hygiene.



The advantages of Pieralisi innovations



Leaf and twig removal

- The olive leaf and twig remover are designed and built to prevent, when the olives are passing through the machine, them from any impact and contact with the metal parts, thereby also preventing oil dispersion.
- Maximum yield: the leaf remover also prevents losses in terms of oil in the subsequent washing stage thanks to special Pieralisi devices.
- Any olives attached to twigs are recovered.
- The leaf remover is completely automatic, operates non-stop (with no type of interruption) and seamlessly feeds Pieralisi washing machines.
- Low water and energy consumption.



Washing

- Uniform washing of the olives thanks to the continuous stream of air that keeps the olives suspended in the water. This prevents the olives - washed one by one - from coming into contact with the metal parts. This protects the grating of the crusher and extends its life.
- Easy removal of solid sediments (stones and branches) thanks to the automatic tipping system of the washing tank.
- Easy-to-clean washing machine: the wash water in the tank is drained using a quick acting foot pedal control to open a large valve. The water drains out in no time at all.
- The final washing cycle of the olives is done using clarified water so as to eliminate any type of contamination from foreign matter. The shower system has special nozzles fitted on the one-of-a-kind inclined slat conveyor.
- The special slope of the belt reduces the quantity of water present in the olives to a minimum, thus enhancing the quality of the oil in the subsequent stage of pressing/crushing.
- Minimum consumption of remaining water thanks to the sloped design of the tank.
- Low water and energy consumption.



OLIVE RECEIVING AND LEAF REMOVER UNIT

The unit is composed of a belt elevator, a hopper and a leaf remover. The belt elevator is made of a tubular steel frame and is equipped with a belt tensioner and has adjustable de-leaving capacity. The belt is made of food grade acid-resistant rubber and has a special roller with brushes to keep the slats that transport the olives clean.

The design with self-aligning rollers ensures greater durability of the belts thereby reducing the cost of operating the oil mill.

All Pieralisi belts are complete with special side guards made of food grade rubber that are the perfect solution for reducing any damage to the drupes. Different sizes are available upon request to meet all installation requirements.

BELT OPTIONS

Herringbone belt

Elevator with herringbone belt ensures optimum transportation of the olives without suffering impacts and damage to the drupes.

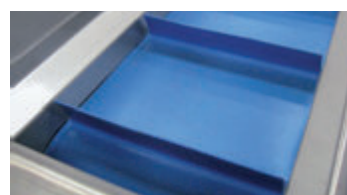
Slope set up to 30° to prevent the stone fruit from rolling down.



Shutters belt

The elevator with a shutter belt uses up to 30% less installation space than herringbone belts.

Slope set up to 45° to prevent the stone fruit from rolling down.



HOPPER

Stainless steel hopper
600 L



Stainless steel hopper
900 L with belt

Expandable up to a 1900 L



LEAF REMOVER

Leaf remover
for belt
herringbone

Leaf remover integrated on herringbone
belt.



Leaf remover
belt

Engineered to be installed with shutter type
elevators, compatible with herringbone belt
for better leaf removal.





FP 35

TWIG AND LEAF REMOVER FP

	installed power kW	L mm	W mm	H mm
FP 35	4	2030	1220	1160
FP 75	6	2820	3080	2910

The measurements shown refer to **L**: total length; **W**: total width; **H**: total height



FP 75

The special device makes possible to reuse any drupes that remain attached to twigs.

The considerable amount of raw material is recovered automatically and the machine discharges the twigs without olives and leaves on one side and, on the other side, the clean olives are routed to the other olives.

Like all Pieralisi machinery used for processing olives, before proceeding to the washing stage, the twig remover is designed and built to prevent, when drupes pass through, impact or contact with metal parts that could cause the olive skin to tear, thereby preventing the loss of oil before crushing stage.

The twig and leaf remover operates automatically and continuously, feeding the olives directly into Pieralisi washing machines.



OPTIMA WASHING MACHINE

	installed power kW	L mm	W mm	H mm
L 10	1.9	3250	1150	1550
L 20	2.7	3600	1520	1550
L 30	4.9	3760	1520	1550

The measurements shown refer to **L**: total length; **W**: total width; **H**: total height



L 20

The special washing system of the hydro-pneumatic olive washer made by Pieralisi ensures the removal of all dirt on the olives and the separation of any type of foreign matter.

Water consumption is limited because the water, during its circulation, deposits all the sediments removed, thus ensuring constantly clean water in the washing tank.

Detail of sloped belt for improved drying of the olives. A distinctive Pieralisi feature





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