

# Leaf Remover

Removing leaves from the grapevine canopy around the grapes



The **Slopehelper Leaf Remover** is an innovative **de-leafing system** designed to remove excess foliage from the **vineyard canopy**, enhancing **bunch solarization** and improving **grape quality**. The **Slopehelper Leaf Remover** operates on a **leaf-trimming** principle. Leaves are first compressed between two rotating drums, after which they are **vacuum-suctioned** and evenly distributed onto the plantation floor for **natural decomposition**.

To ensure precise **leaf removal** without damaging the vines, the de-leafer is equipped with a **disk cutter** that prevents the accidental catching or tearing of young branches, maintaining **vine health** and structure while optimizing **sunlight penetration** and **airflow** for better **grape ripening**.

**100% Autonomous** | **100% Electric**

## Features & Benefits



### Adjustable De-Leafing Height Position

Vineyards vary in **trunk height** and **bunch positioning**, making **adjustable de-leafing height** essential for optimal canopy management. The **Slopehelper Leaf Remover** features a **fully adjustable height system**, allowing growers to precisely set the **de-leafing position** based on the specific structure of their vineyard. This flexibility ensures that the system **effectively removes leaves** without affecting **grape clusters**, whether in low-trained vines, high trellises, or uniquely configured plantations.

By adapting to **various vineyard layouts**, the **Slopehelper Leaf Remover** provides a **customizable, high-precision solution** that enhances **solar exposure, airflow**, and overall **grape quality**.



### Automatic Adjustable De-Leafing Position on the Canopy

The **Slopehelper Leaf Remover** is equipped with an **intelligent positioning system** that **automatically adjusts** the **de-leafing head** in synchronization with the **Base Platform's movement**. This ensures a **precise** and **consistent de-leafing process**, regardless of terrain variations, real-time trajectory deviations, or operation on slippery surfaces.

By dynamically adapting to the **canopy's structure**, the system **guarantees uniform leaf removal**, optimizing **solar exposure** and **airflow** around the grape clusters. This advanced automation eliminates the need for manual adjustments, making **vineyard maintenance** more **efficient, precise**, and **effortless**, while ensuring optimal conditions for high-quality **grape production**.



### Vertical Positioning for Slippery Terrain

When operating on **slippery surfaces** or traversing **slopes**, maintaining **precise alignment** of the **de-leafing head** with the **vineyard canopy** is essential for accurate and **uniform leaf removal**.

The **Slopehelper Leaf Remover** is equipped with an advanced **vertical positioning system** that **continuously monitors** the instrument's inclination and **terrain variations**. This ensures that the de-leafing **mechanism remains perfectly aligned** with **vineyard rows**, even in challenging terrain conditions.

By dynamically adjusting to **surface irregularities** and **slope angles**, the system guarantees consistent **canopy coverage**, preventing uneven de-leafing and maximizing **solar exposure** and **airflow** for improved **grape quality**.





## Cutter for Enhanced De-Leafing Performance

To ensure optimal **efficiency** and uninterrupted operation, the **Slopehelper Leaf Remover** is equipped with a **cutter saw** positioned in front of the **de-leafing head**. This pre-cutting mechanism effectively trims **branches** before they reach the **de-leafing drums**, preventing them from getting jammed or obstructing the process.

By eliminating potential blockages, the **cutter saw enhances operational smoothness**, ensuring consistent **leaf removal** while maintaining the **health** and **structure** of the **vineyard canopy**.



## Easy Access for Drum and Ventilator Cleaning & Maintenance

The Slopehelper Leaf Remover is designed with **easy-access covers**, allowing **quick and efficient maintenance** of the **de-leafing drums**. These covers enable operators to **easily open the head** and access the drums for **cleaning** and **servicing** whenever necessary, ensuring optimal **performance** and **longevity**.

Additionally, the **suction ventilator block** features a **quick-opening mechanism**, providing **immediate access** to **ventilator components** for **cleaning** and **maintenance**. This user-friendly design minimizes downtime, allowing for **smooth operation** and **consistent de-leafing efficiency** throughout the season.



## Fully Electromechanical Solution—No Hydraulic or Pneumatic Actuation

The Leaf Remover, like all Slopehelper Agrosystem instruments, operates exclusively on **electromechanical solutions**, without relying on hydraulic or pneumatic actuators.

The **electromechanical design** ensures the **Leaf Remover** is a **fully field-ready**, highly **efficient**, and **long-lasting** solution for modern **fruit harvesting**.

## Technical Specifications

DIMENSIONS	VALUE
Height	2020 mm
Length	1600 mm
Width	1575 mm
Weight	565 kg
WORKING DIMENSIONS	VALUE
Horizontal auto adjustment of cutter	up to 600 mm of movement outside
Width of the row	up to 2800 mm
Horizontal adjustment of blades	up to 150 mm from cutter
Vertical movement of frame	850-1650 mm from the ground
Frame tilt on uneven terrain	± 15°
Inlet airflow	2,6 m/s
Sound power level	60 dB



# Technical Specifications

## GENERAL SPECIFICATIONS

## VALUE

Compatibility

SH.056 Slopehelper

Drive method

V-belt

Number of belts

3

Motor

Brushless motor - BLDC

## BLADE SPECIFICATIONS

## VALUE

Type of blades

Multipurpose Tungsten Carbide Tipped Blade

Number of blades

2

Drum/trimming plate width

500 mm

