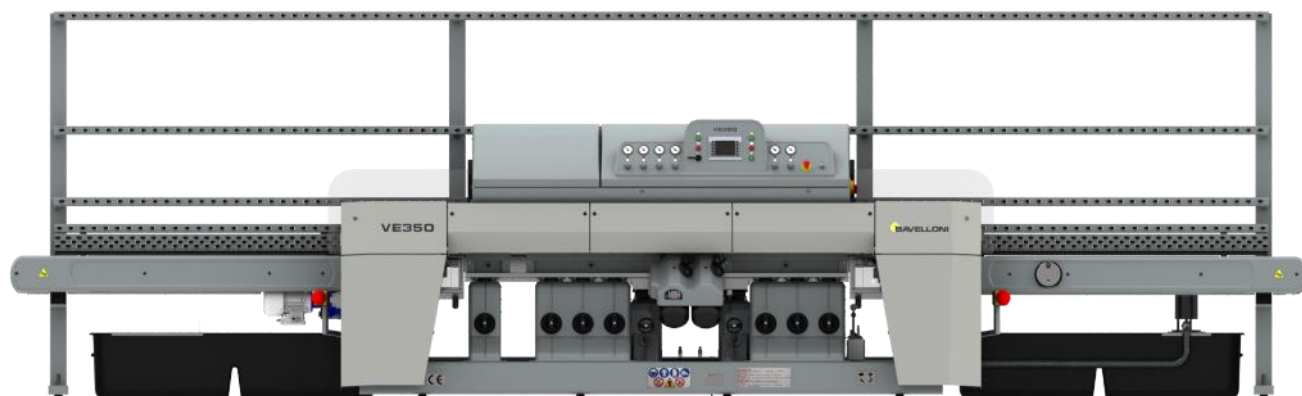


BAVELLONI VE 350 11

Vertical straight-line edging machine



VE 350 11 description - 52022

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General description

Automatic vertical straight-line machine with 11 cup wheels to perform flat edge with arrises on glass sheets and/or on mirrors, having a thickness from 3 to 40 mm.

Structure

By using modern systems of three-dimensional modeling, Bavelloni optimized VE 350's structure, composed of a strong electro-welded modular basement supporting the spindles and the glass sheets conveyor, for better quality of the final product.

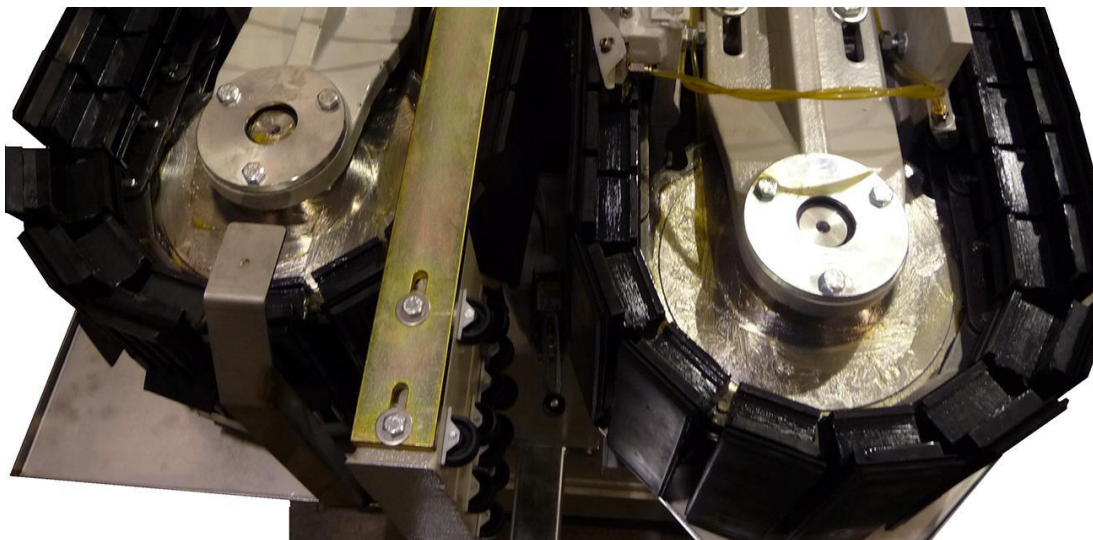
Inlet and outlet arms

The inlet and outlet arms, for the loading/unloading of the glass sheets, have conveying chains in anti-friction material. The inlet arm is equipped with a device to change the glass removal without the necessity to operate on the position of the diamond wheels. Said removal can be read on a proper mechanical indicator.



Conveyor

The conveyor consists of two parts, one fixed and one movable, to adapt to the various thicknesses of the glass.



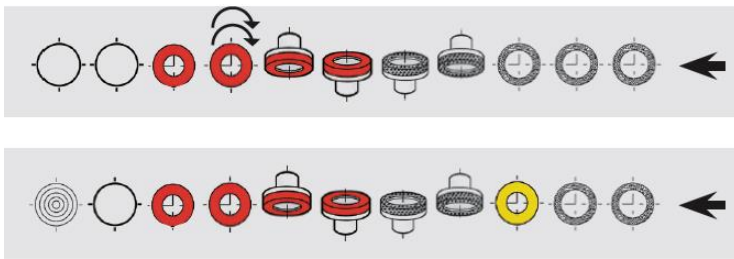
The opening is made by a mechanical device motorized and controlled by the NC.
The VE 350 series machines use a **patented** conveyor, sliding on high precision ground steel guides without the aid of ball bearings.
The speed variation is carried out by means of an inverter controlled by NC.
The machine is equipped with a centralized lubrication system managed by the NC.

Spindles

The machine is equipped with the following spindles:

1. diamond metal bonded cup wheel for edge grinding
2. diamond metal bonded cup wheel for middle edge grinding
3. diamond resin bonded cup wheel for fine edge grinding
4. diamond cup wheel for rear arris
5. diamond cup wheel for front arris
6. polishing cup wheel for front arris
7. polishing cup wheel for rear arris
8. rubber polishing cup wheel for flat edge polishing
9. rubber polishing cup wheel for flat edge polishing
10. rubber polishing cup wheel with cerium oxide mixture for edge polishing
11. rubber polishing cup wheel with cerium oxide mixture for edge polishing

All wheels have a diameter of 150 mm.



If a brilliant finish is required, a cerium oxide polishing system consisting of: tank, pump, mixer, filter and connecting pipes is available as an option. This system requires the use of a felt wheel in position 11.

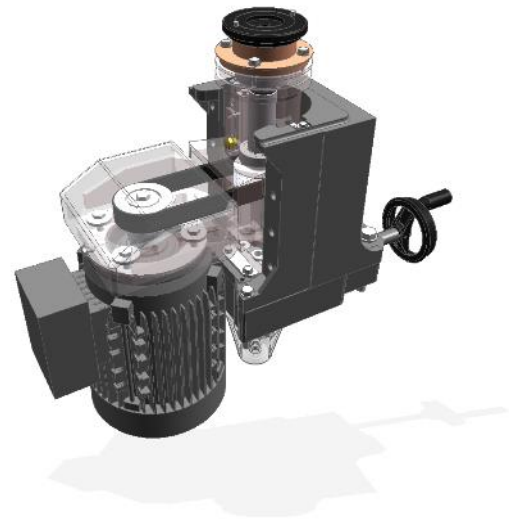
The spindles for the processing of the flat edge are **separated from the electric motor** and the transmission is by means of belt and pulleys to eliminate any possible vibrations.

The spindles body is in iron casting and slides on high-precision adjustable guides. The spindle shaft is in tempered and ground steel, lubricated by for life special grease (free from periodical maintenance).

The wheel compartments are completely in stainless steel to avoid any possible corrosion caused by the grinding water.

Polishing spindles are equipped with a pneumatic automatic adjustment system to compensate the wheel wear: this device raises the wheel position, while it is wearing, always ensuring, in this way, a perfect edge polishing. The polishing pressure intensity is adjustable by means of a regulator according to glass thickness and to the required finishing.

The manual adjustments of the wheels are all carried out from the machine front side.



Control equipment



The control panel is integrated in the control equipment.

All the operations are managed by an HMI-PLC that executes both machine functions and user interface functions. It integrates a touch screen color monitor which represents the most complete and user-friendly equipment now existing in the market due to its innovative characteristics and its clear and immediate graphics.

By means of the control equipment it is possible:

- Activating a program automatically setting the machine for the selected working
- Displaying maintenance intervention according to the operation time of the machine
- Switching on/off machine conveyor forward gear and backward gear
- Opening & closing machine conveyor

- Changing conveyor speed
- Visualizing graphically spindles absorption
- Displaying partial and total working hours
- Displaying partial and total worked meters
- Displaying meters processed by each wheel
- Graphically displaying motor absorption, helping the operator to adjust the tools in the optimal way, maximizing productivity, and product quality and tools life
- Using the **Ecofriendly pack** for optimizing energy consumption. The Ecofriendly pack includes **GRIND&STOP** function to stand-by spindles feeding and close pneumatic and cooling circuits after a preset time from the last ground sheet; selection and exclusion of the spindles that are not used during the selected working cycle.

The panel also contains the pressure regulators and gauges for polishing spindles.

Thanks to a purposely developed application, the control panel view can be remoted via **Wi-Fi** on tablet or compatible devices (**optional**).

Electrical plant

The electrical cabinet fully integrated in the machine body, easy to service, carried out according to latest CE standard, contains all electrical components and it includes the control panel (HMI), the manometers/regulators for a comfortable handling during working process.

Standard voltage 400V - 50Hz, others upon request.



Hydraulic plant

Closed circuit hydraulic plant for the wheels cooling consisting of two tanks (total capacity 720 litres), water distributing/return circuit and recycle pump.

HiWash washing machine (optional)

The washing machine is integrated mechanically and electronically in the machine outlet arm, and it does not need a separated electrical box. It is totally managed by VE 350 touch-screen control. Max washable height 400 mm, minimum 150x100 mm. Glass thickness control and energy saving function (HiWash will start only when glass gets close) in the standard supply.



VE 350 11 description

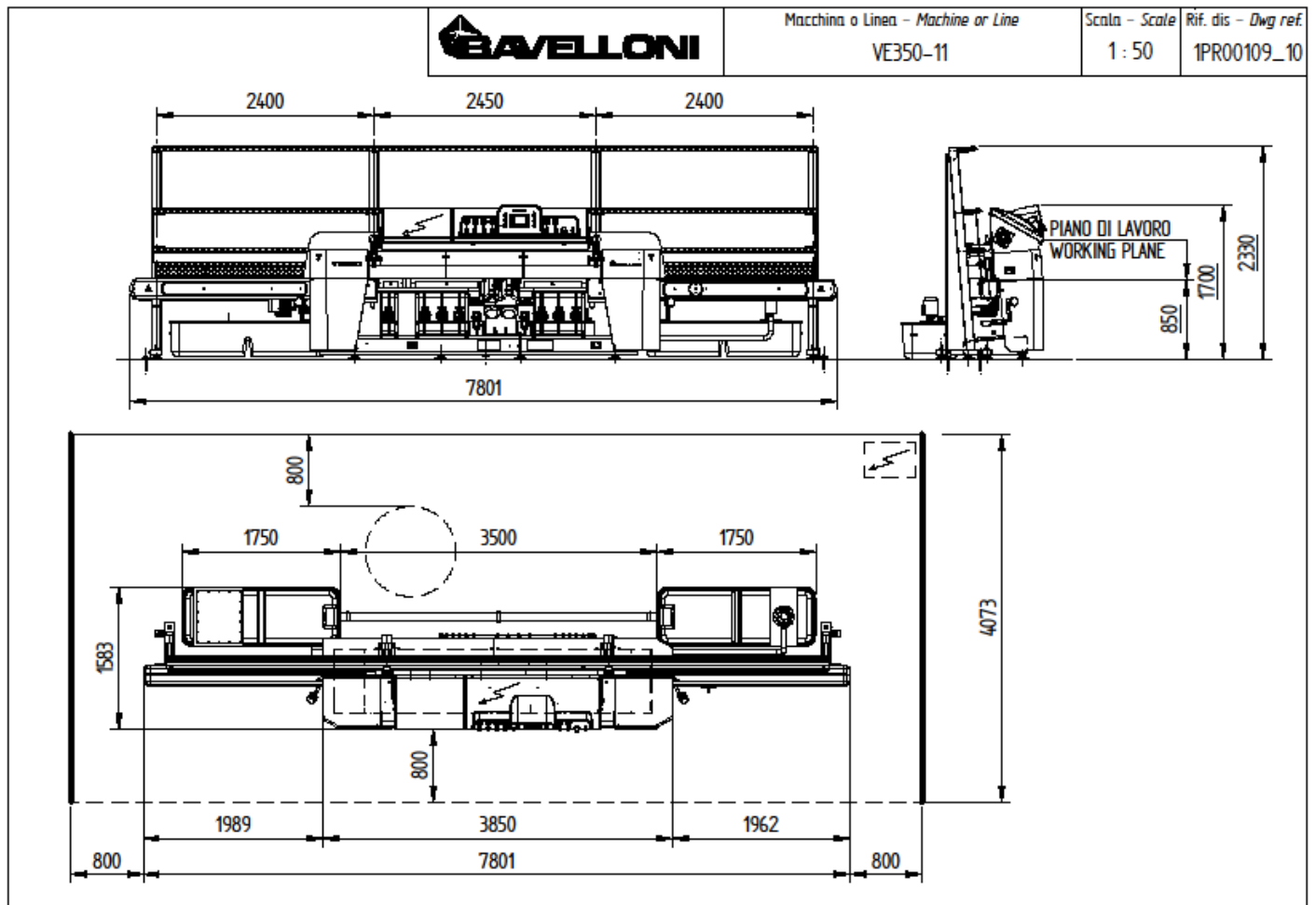
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Technical specifications

Workable thickness	3÷40 mm
Minimum workable height	50 mm
Minimum workable height (using the OPTIONAL kit)	35 mm
Installed power	27 kW
Minimum pressure of compressed air	6 bar
Maximum consumption of compressed air	25 Nlt/min
Length	7810 mm
Width	1700 mm
Height	2300 mm
Weight	3350 kg. about
Working speed	0,5 ÷ 5 m/min
Water tanks capacity	720 litres

VE350 11 layout

This lay-out is indicative: a definitive lay-out will be delivered with the sales agreement.



VE 350 11 description

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