

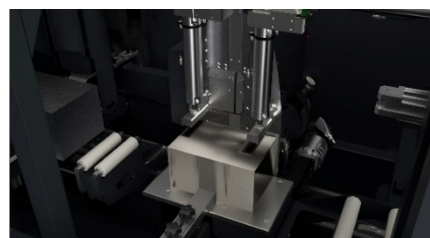
Vegamill HB

8- to 12-axis CNC machining and cutting-off centre



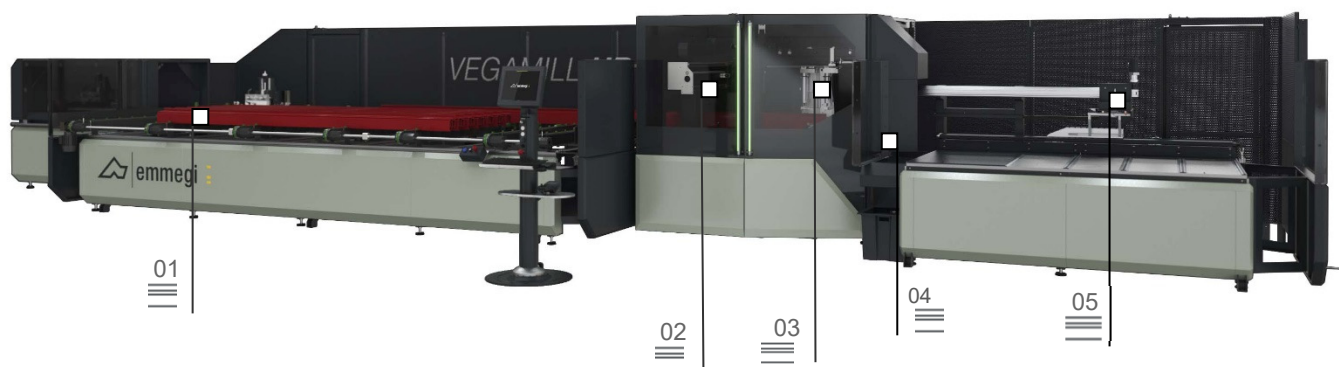
Bar feeding

01



Milling unit

02



8- to 12-axis CNC machining and cutting-off centre, built for cutting, drilling and milling aluminium and light alloy profiles. VEGAMILL consists of four main units.

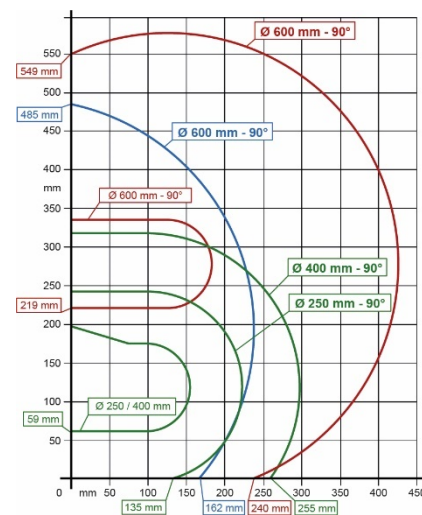
Automatic belt loading magazine for profiles with a length of max. 7,500 mm.

A high-precision and high-speed push-feed system with gripper for profile picking and conveying to a machining area. The adjustment of horizontal and vertical position of the gripper is manual; it can be optionally automated by means of an electronic positioning system on two controlled axes.

The central machining unit with drilling and milling functions by means of 4-axis CNC and cutting unit, with wide blade. The cutting unit with 250 and 400 mm blade performs 90° cuts; in the version with 600 mm blade, it can perform cuts with an inclination of up to 22°30' to the right and left, with the precision and efficiency of a brushless motor on CNC rotation axis with absolute magnetic band.

The unloading unit may consist of a conveyor belt, ideal for short pieces such as brackets and hinges, or, alternatively, an unloading table equipped with an automatic extractor and an automatic tilting and translation system.

The units making up VEGAMILL are protected by guards in such a way that they do not require additional enclosure guards, lending compactness and flexibility to this cutting-off and machining centre.



Cutting unit

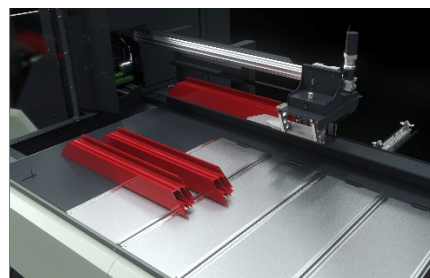
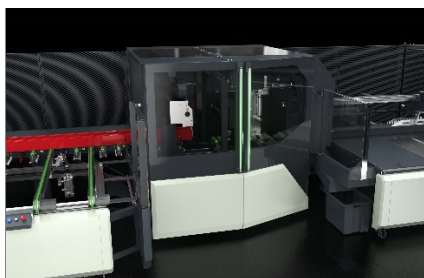
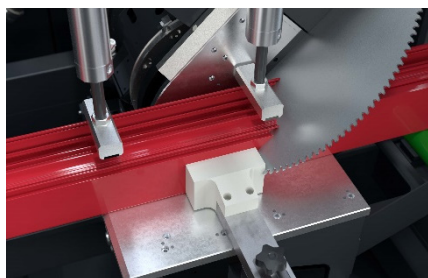
03

Full guard cabin

04

Machining piece unloading system

05



Vegamill HB

8 a 12 assi8- to 12-axis CNC machining and cutting-off centre

01 Bar feeding

High precision and speed numerical control bar positioning system. The system is complete with profile clamping gripper with manual position adjustment; optionally it is possible to automatically manage the horizontal and vertical position on two CNC axes. The belt loading magazine allows the loading of profiles up to 7.5 m long. The transmission of the movement takes place on a rack, through a minimum clearance speed reducer to maintain the high precision standards guaranteed by the CNC. The sliding of the feeder takes place on cemented and tempered bars, by means of ball sleeves. The integral protection of the profile positioning trolley guarantees maximum safety by limiting the area occupied by the machine in favor of greater availability of space in the workshop.

02 Milling unit

The 4-axis CNC milling unit consists of a 4 kW S1 electrospindle that can reach a speed of 20.000 rpm. The movement of the electrospindle along the A axis allows to rotate from 0° to 180°, allowing you to work the profile on 3 faces, without repositioning. It can be used on aluminum, PVC and light alloy profiles, and can also process steel extrusions with thicknesses up to 2 mm. Vegamill has an automatic tool magazine with 4 places with the aim of managing different processes or, more frequently, to guarantee the automatic replacement of worn tools, to support the long machining cycles typical of this machine.

03 Cutting unit

The cutting unit with front blade output is optimized for the management of profiles of reduced sections, for the mass production of small components with one / two processes such as hinges and brackets. It therefore has blades of minimum thickness to reduce material consumption, from a diameter of 250 mm to 400 mm. For applications on larger profiles and production of pieces suitable for other applications, a CNC angular rotation cutting unit is available, tiltable on both sides up to 22°30' with a 600 mm diameter blade, capable of processing profiles of large sections with angled and special cuts.

04 Full guard cabin

The full guard cabin has been designed to combine maximum functionality, accessibility, soundproofing and brightness with the needs of safety and ergonomics. The refined and innovative design makes the machine unique and unmistakable. The large windows allow the operator to check the execution of the work in a simple and safe way. The cabin has a very wide access with a double door that houses functional LEDs for communication with the operator.

05 Machining piece unloading system

Vegamill can be equipped with two extraction systems for the worked piece. The first consists of a conveyor belt that extracts the machined and cut pieces, depositing them in a collection container. The belt is sized to ensure the evacuation of small components typical of the operation of this machine. The second includes an unloading bench with extractor equipped with a CNC gripper that allows you to unload larger pieces, up to 2500 mm in length. The unloading magazine manages the accumulation of finished pieces while a sensor, which signals the full magazine, oversees the functionality of the system. This system combined with the tilting cutting unit allows you to work large profiles for applications in many different sectors.

AXIS TRAVEL

| | |
|-----------------------------------|-------------|
| U0 AXIS (feeder) (mm) | 8.500 |
| X0 AXIS (longitudinal) (mm) | 200 |
| Y0 AXIS (cross) (mm) | 1.340 |
| Z0 AXIS (vertical) (mm) | 388 |
| A0 AXIS (electrospindle rotation) | -90° ÷ +90° |

POSITIONING SPEED

| | |
|-----------------|----|
| X0 AXIS (m/min) | 56 |
| Y0 AXIS (m/min) | 22 |
| Z0 AXIS (m/min) | 22 |

MILLING UNIT

| | |
|--|-------------|
| Max. power rating in S1 (kW) | 4,0 |
| Max. speed (r.p.m.) | 20.000 |
| Toolholder taper | HSK - 50F |
| Coolant system with minimum quantity coolant | • |
| Liquid cooling | • |
| Automatic rotation of the tool | -90° ÷ +90° |
| 2 places automatic tool magazine | • |

CUTTING UNIT

| | |
|--|------------------------|
| Fixed cutting unit (90°) (according to model) | • |
| Tilting cutting unit (22°30' ÷ 157°30') (according to model) | • |
| Carbide tipped blade | • |
| Blade diameter / thickness for 90° cutting unit (mm) | 250 / 1,9 400 / 3,8 |
| Blade diameter / thickness for tilting cutting unit (mm) | 600 / 5 |
| Brushless blade motor power rating (kW) | 2,5 |
| NC blade feed | • |
| Lubrication system with minimum quantity coolant | • |

LOADING UNIT

| | |
|---|---------|
| Loading feeder with adjustable clamping gripper | • |
| Belt loading magazine | • |
| Minimum theoretical cutting length (mm) | 7.500 |
| CNC gripper positioning (V and W axis) | 0 |
| Piece 90° overturn device in loading phase | ○ |
| Minimum loadable profile section without counterblocks (mm) | 30 x 30 |

UNLOADING UNIT

| | |
|---|-------|
| Conveyor belt (second model) | • |
| Unloading bench with automatic extractor (according to model) | • |
| Max. unloadable profile length in automatic mode (mm) | 2.500 |