

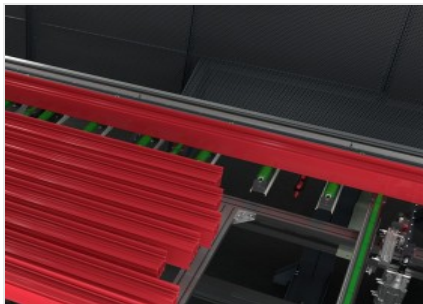


## ***Vegamill HB***

### **CNC machining centres**

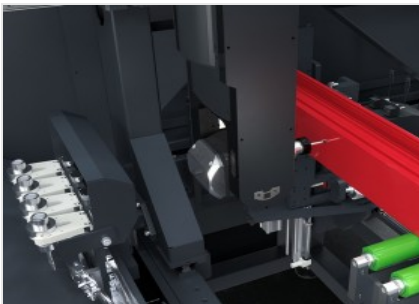


8- to 14-axis CNC machining and cutting-off centre, built for cutting, drilling and milling aluminium and light alloy profiles. VEGAMILL consists of four main units. Automatic belt loading magazine for profiles with a length of max. 7.500 mm. A high-precision and high-speed push-feed system with gripper 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. A 4-axis CN milling unit with drilling and milling functions performs machining on the upper and lateral faces of the profile; a second 3-axis NC optional unit works on the lower face. 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.



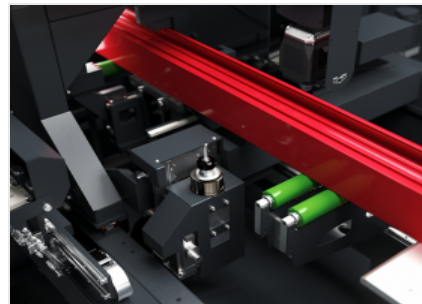
### Bar feed system

Numerically controlled, high precision and high speed bar positioning system. The system is complete with a profile clamping gripper with manual position adjustment; optionally, automatic horizontal and vertical position management on two CNC axes is possible. The belt loading magazine is used for loading profiles with length of up to 7.5 m.



### Milling unit

The 4-axis CNC milling unit consists of a 8,5 kW electrospindle in S1 that can reach the speed of 24.000 rpm. The electrospindle movement along A axis performs  $-120^{\circ}$  to  $+120^{\circ}$  rotation, allowing to work on 3 sides of the profile with no need to reposition it. It can be used on profiles made of aluminium, PVC and light wood.



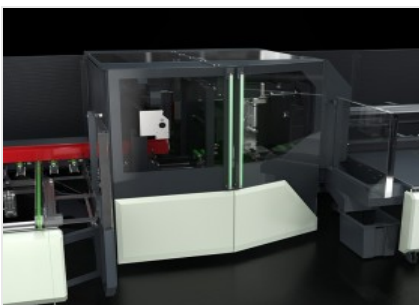
### Lower milling unit (Optional)

The machine is equipped with an optional milling unit, which allows machining of the profile bottom face. This solution allows the machine to work on all faces of the profile, facilitating the management of the entire cutting and machining cycle, from the raw bar to the finished workpiece.



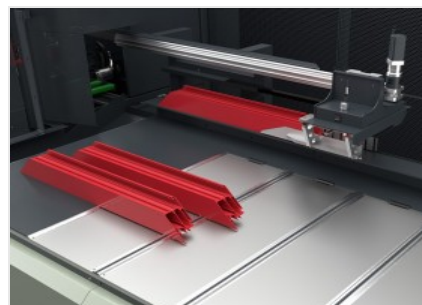
### Cutting unit

The cutting unit with horizontal blade outlet is optimised for handling profiles of small sections, for mass production of small components with one/two machining operations such as hinges, brackets and corner cleats. It therefore has minimal blade thicknesses to reduce material consumption, from a diameter of 250 mm to 400 mm.



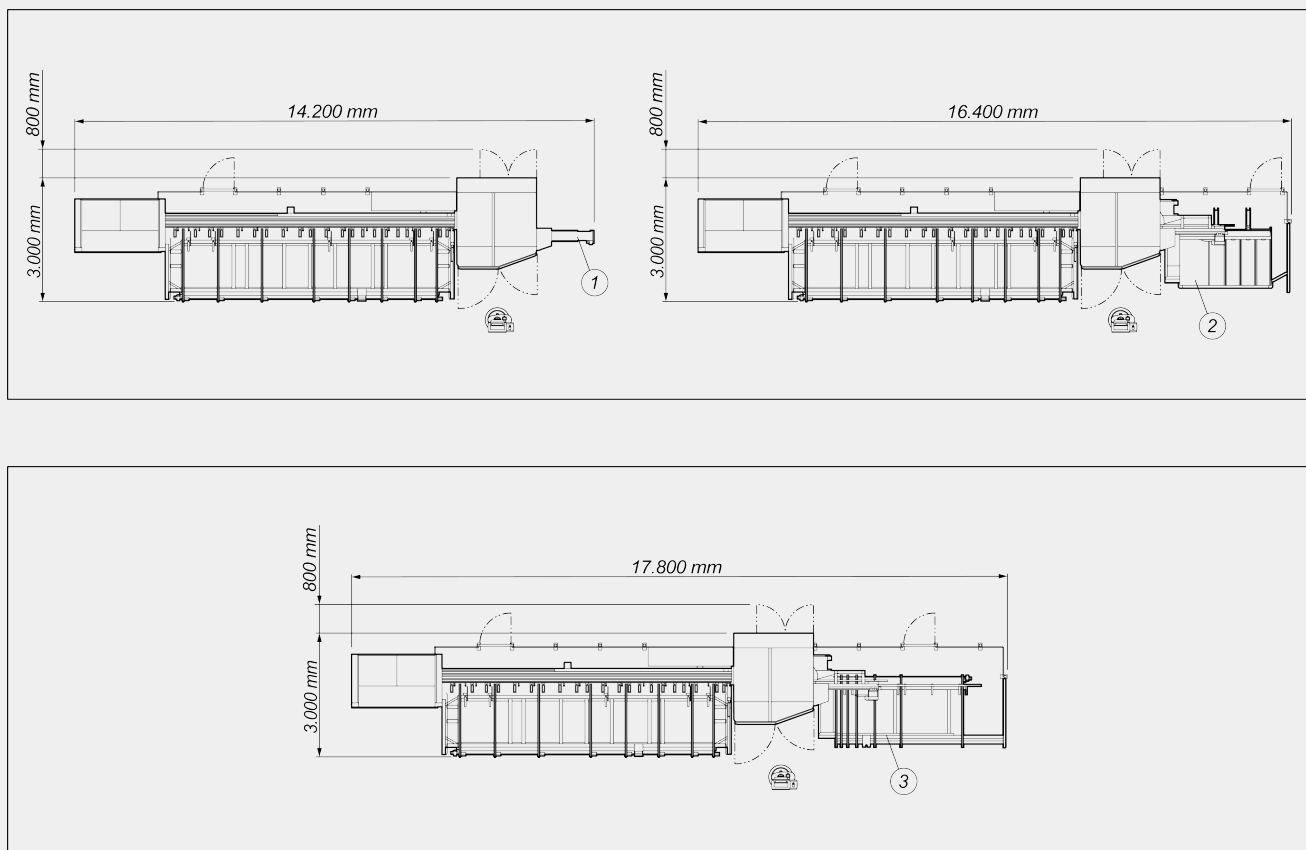
### Integral protection booth

The integral protection booth has been designed to offer optimal functionality, accessibility, soundproofing and lighting while fulfilling safety and ergonomics requirements. The innovative and refined design makes the machine unique and unmistakable. The large glass windows allow the operator to easily and safely control the execution of the machining operations.



### Extraction system for machined workpiece

Vegamill can be equipped with two workpiece extraction systems. The first consists of a conveyor belt that extracts the processed and cut workpieces by depositing them in a collection container. The belt is sized to ensure the evacuation of small components typical to the operation of this machine. The second one includes an unloading workbench with an extractor equipped with a CNC gripper to unload larger workpieces, up to 2.500 mm in length.


**LAYOUT**


1. Unloading unit with conveyor belt
2. Unloading unit with accumulation workbench
3. Unloading unit with belt magazine

The overall dimensions may vary depending on the product configuration.

**AXIS STROKES**

U0 AXIS (feeder) (mm)	8.500
X0 AXIS (longitudinal) (mm)	200
Y0 AXIS (transversal) (mm)	975
Z0 AXIS (vertical) (mm)	470
A0 AXIS (electrospindle rotation)	-120° ÷ +120°
V0 AXIS (transversal) (mm)	210
W0 AXIS (vertical) (mm)	95



## POSITIONING SPEED

U0 AXIS (feeder) (m/mm)	0 ÷ 85
X0 AXIS (longitudinal) (m/mm)	56
Y0 AXIS (transversal) (m/mm)	22
Z0 AXIS (vertical) (m/mm)	22
W0 AXIS (vertical) (m/mm)	25
V0 AXIS (transversal) (m/mm)	25

## LOADING UNIT: PROFILE POSITIONING

Loading feeder with adjustable gripper	●
Max. loadable profile length (mm)	7.500
Belt loading magazine	●
Profiles loadable into the magazine	9
Theoretical minimum cutting length (mm)	0
Electronic axis gripper positioning (V and W axes)	○
Max. loadable profile width (mm)	200
Minimum profile section that can be loaded without counterblocks (mm)	30 x 30

## MILLING UNIT

Maximum power in S1 (kW)	8,5
Toolholder cone	HSK - 63F
Maximum speed (rpm)	24.000
Cooling through heat exchanger	●
Minimal oil diffusion lubrication system	●
Automatic tool rotation	-120° ÷ +120°

## LOWER MILLING UNIT (OPTIONAL)

Maximum power in S1 (kW)	2,0
Maximum speed (rpm)	24.000
Toolholder	ER25
Electrospindle controlled on 3 axes with simultaneous interpolation	●
Machinable section in Y (mm)	200

## 90° CUTTING UNIT

Widia blade	●
Brushless blade motor power (kW)	2,5
Blade diameter/thickness for 90° cutting unit (mm)	250 / 1,9 ; 400 / 3,8
CN blade feed	●
Minimal oil diffusion lubrication system	●

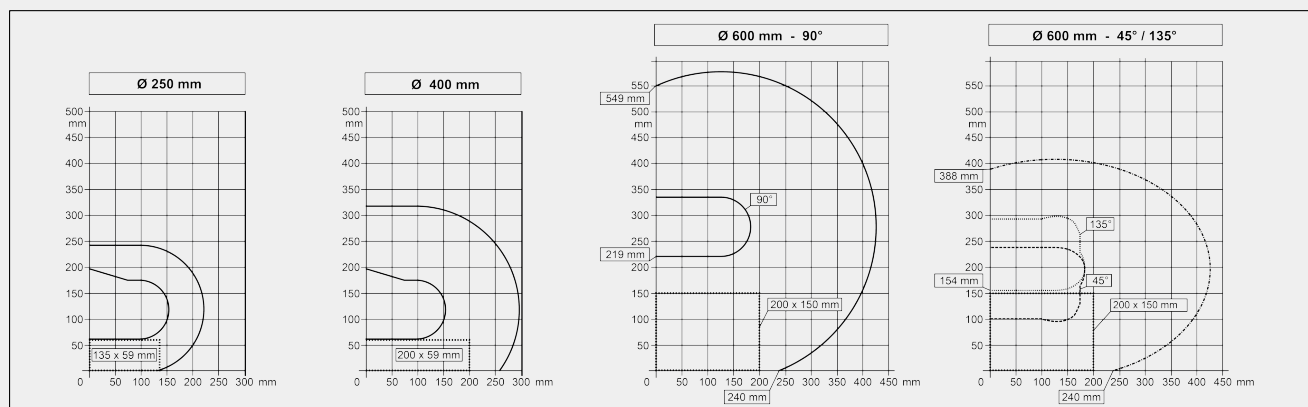


## TILTING CUTTING UNIT

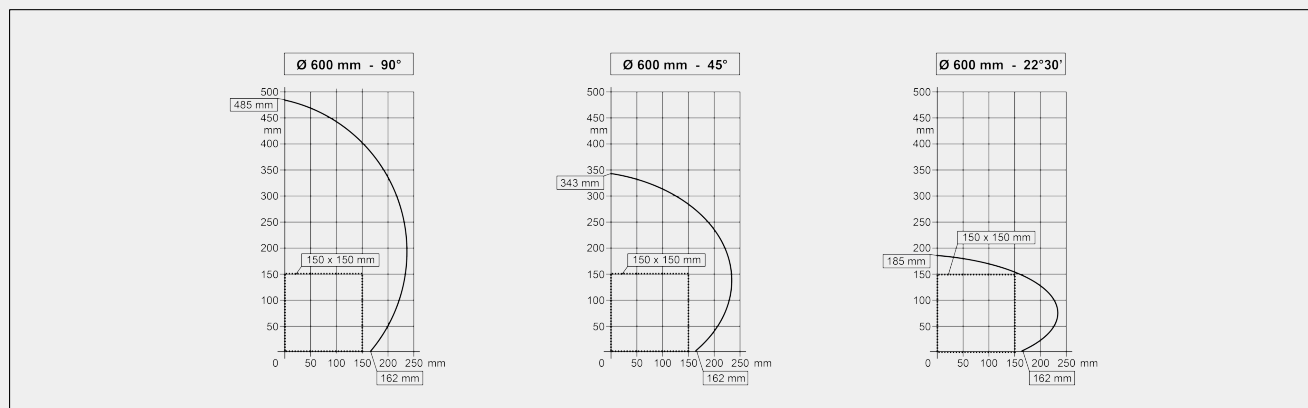
Widia blade	●
Brushless blade motor power (kW)	2,5
Blade diameter for tilting cutting unit (mm)	600 / 5
CN blade feed	●
Minimal oil diffusion lubrication system	●

## CUTTING AND MACHINING DIAGRAMS

### Radial cut



### Standard cut



## UNLOADING UNIT WITH CONVEYOR BELT

Conveyor belt	●
Max. profile length that can be unloaded automatically (mm)	200

**UNLOADING UNIT WITH ACCUMULATION WORKBENCH**

Unloading workbench with automatic ejector	●
Max. profile length that can be unloaded automatically (mm)	2.500

**UNLOADING UNIT WITH BELT MAGAZINE**

Unloading workbench with automatic ejector	●
Max. profile length that can be unloaded automatically (mm)	4.000

Included ● Available ○