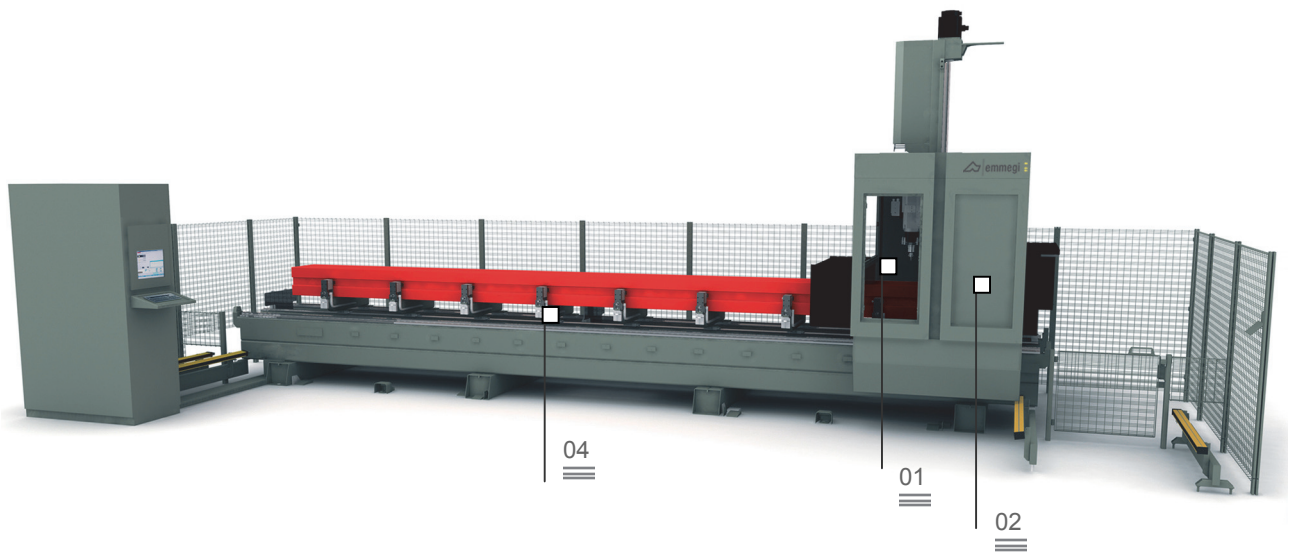


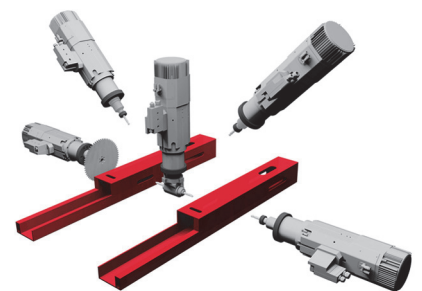
Diamant Machining centre

Parallel Machining 01

Tool magazine 02



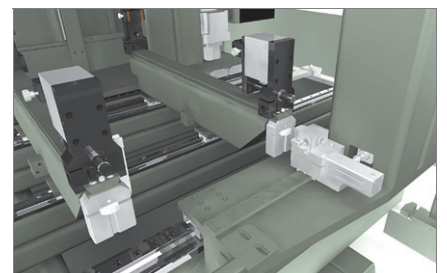
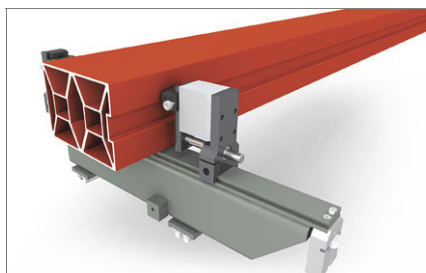
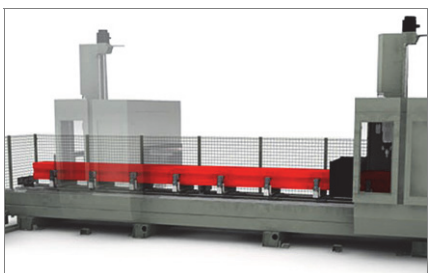
4-axis CNC machining centre with mobile gantry structure, designed for milling, drilling, thread-cutting and slotting operations at any angle from 0° to 180° on bars or workpieces made of aluminium, PVC, light alloys in general and steel. The mobile part of the machine consists of a gantry provided with precision rack drive. The 7.5 kW electro-spindle with HSK63F toolholder, allows performing machining operations with excellent results in terms of rapidity and accuracy. The 9-place tool magazine is located behind the mobile gantry. The machine can be used in dynamic double mode which allows minimizing machine downtimes as it is possible to carry out the workpiece change operations (loading/unloading) and automatic positioning of the vices in concurrent operation time. It is also possible to load, then machine, workpieces with different codes and machining operations between the two work areas. The column is provided with a guard which, besides protecting the operator, allows reducing the environmental noise impact



Double mode 03

Vices 04

Automatic vice positioning 05



Diamant

Machining centre

01

Parallel machining

When the machine is provided with the accessory for clamping two parallel bars, it is possible to perform drilling and milling operations in the internal faces which are not accessible by the electro-spindle; such facility allows greater utilization of the machine capacity, with considerable saving in machining time.

02

Tool magazine

The high-speed tool magazine of large capacity, is installed directly on the machine slide; thanks to its drop-away location and dedicated accommodation, it ensures maximum protection of the tool tapers against swarf or accidental collision. The tool magazine can contain up to 9 (8 + blade dia. 250 mm) tools, configurable as required by the operator. Furthermore each toolholder location is provided with a sensor which detects correct positioning of the toolholder taper.

03

Double mode

Work system which allows minimizing machine downtimes during workpiece loading/unloading. The system allows loading and consequent machining of workpieces with different lengths, codes and machining operations, between the two work areas. Thanks to such solution the machine can be used to great advantage in widely different fields of applications.

04

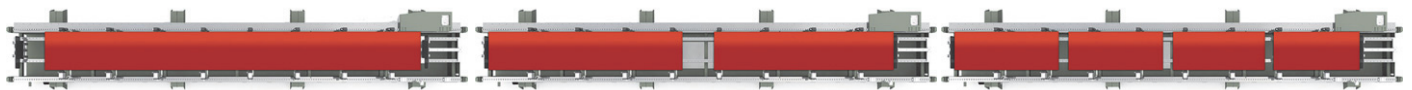
Vices

Generously dimensioned vice set, able to ensure correct gripping of profiles, including large ones, made of aluminium, steel, PVC etc. Each vice set is provided with an air-operated device for traversing the vice table in order to make workpiece loading and unloading easier as well as to considerably increase the machinable section.

05

Automatic vice positioning

The machine software, in relation to the workpiece length and machining operations, is able to determine the exact position for each vice set under fully safe conditions. The automatic vice positioner performs the positioning of each vice set at max. speed and with great accuracy, thus avoiding long down times and risks of collision hence the machine can easily be used also by less skilled operators.



Mode Single-piece
(right and left)

Double Mode

Multi-piece Mode

AXIS TRAVEL	
X AXIS (longitudinal) (mm)	7690 10000
Y AXIS (cross) (mm)	1210
Z AXIS (vertical) (mm)	910
A AXIS (spindle rotation)	0° ± 180°
POSITIONING SPEED	
X AXIS (m/min)	80
Y AXIS (m/min)	64
Z AXIS (m/min)	64
A AXIS (°/min)	8100
ELECTRO-SPINDLE	
Max. power rating (S1) kW)	7,5
Max. speed (rpm)	20000
Max. torque (Nm)	8,2
Tool taper	HSK-63F
AUTOMATIC TOOL MAGAZINE ON BOARD SLIDE	
Number of tools in magazine	9
Max. tool size loadable in the magazine	Ø=63 L=180
Max. blade size loadable in the magazine	Ø=250
Max. number of angle machining heads loadable in the magazine	2
MACHINABLE FACES	
With straight tool (top face and side faces)	3
With angle machining head (top face, side faces and ends)	1 + 2 + 2 + 1
With blade tool (top faces, side faces and ends)	1 + 2 + 2
MACHINING CAPACITY (Base x Height x Length)	
Max. workpiece size, machinable on 1 face, held in standard vice with tool length (A) L=50mm plus toolholder (B) L=138,5mm	640 x 380 x 7700 640 x 380 x 10000
Max. workpiece size, machinable on 1 face, held in special fixture with tool length (A) L=50mm plus toolholder (B) L=138,5mm	900 x 380 x 7700 900 x 380 x 10000
Max. workpiece size, machinable on 3 faces with tool length (A) L=50mm plus toolholder (B) L=138,5mm	460 x 380 x 7700 460 x 380 x 10000
Max. workpiece size, machinable on 5 faces with tool length (A) L=50mm plus toolholder (B) L=138,5mm and angle tools L=60mm	460 x 380 x 7400 460 x 380 x 9730
TAPPING CAPACITY (with tap on aluminium and through hole)	
With compensating chuck	M8
Rigid tapping	M10
WORKPIECE CLAMPING	
Standard number of air-operated vices	6
Max. number of air-operated vices	12
Max. number of vices per area	6