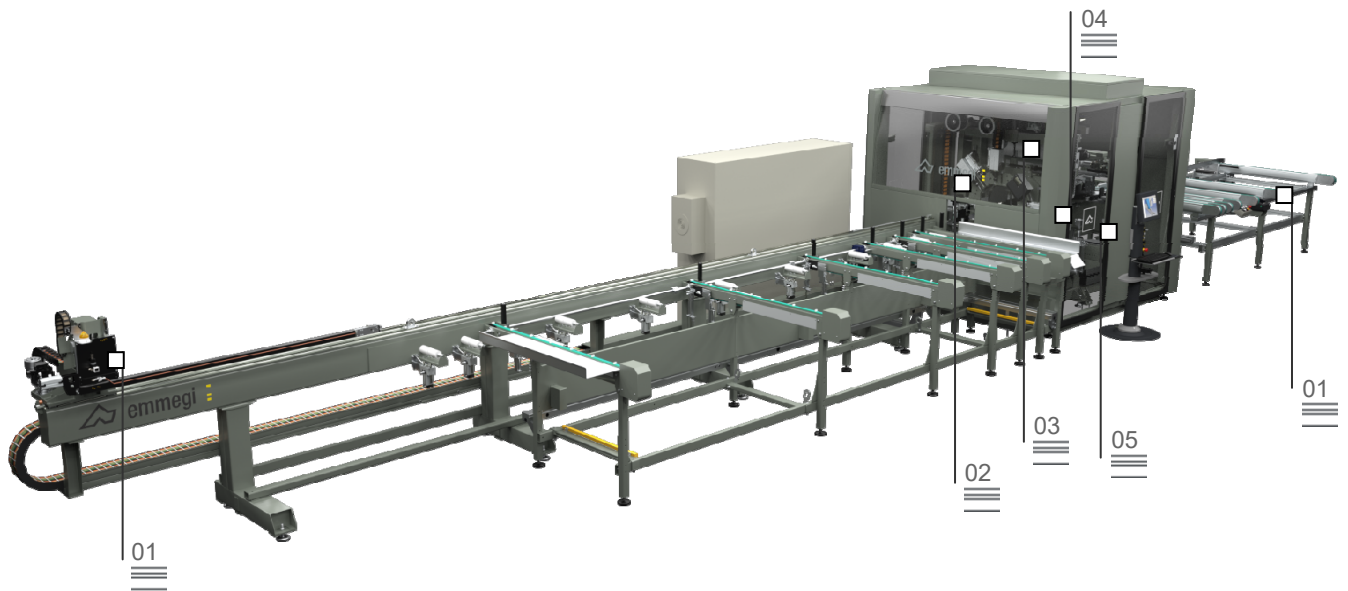


Quadra L2

Machining centre

Automatic bar feed and workpiece unloading 01

Milling unit 02



18-axis CNC machining centre for milling, drilling and cutting aluminium and light alloy profiles. QUADRA L2 is composed of an automatic magazine and a push feed system for profiles of up to 7500 mm in length, complete with gripper drive for profile clamping. Thanks to the gripper movement, the feeder returns to its starting position simultaneously allowing the loader to prepare the next profile.

The milling module, the two cutting modules and the end milling module are located in the central area of the machine. The 4-axis CNC milling module is equipped with from 4 to 6 electrospindles that make it possible to machine any face of the workpiece irrespective of its orientation. The main cutting module is composed of a 600 mm diameter blade with downstroke movement in three CNC axes. The secondary cutting module is equipped with a 350 mm diameter blade with feed and rotation movements on a horizontal CNC axis. The end milling module operates on two CNC axes by means of a cutters unit.

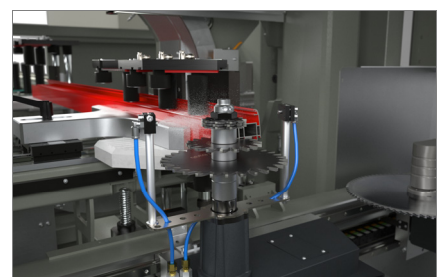
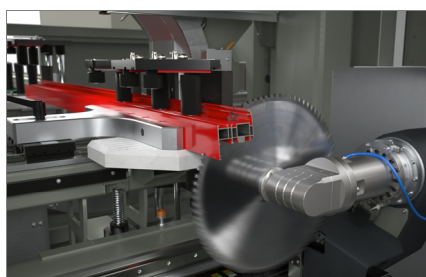
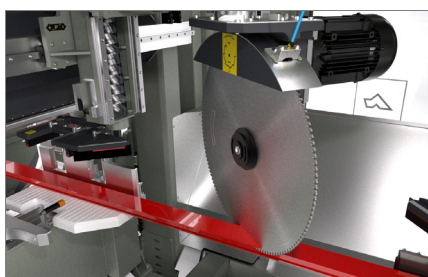
QUADRA L2 also includes an automatic ejector to transfer the workpiece from the cutting-off machine to the unloading magazine. The unit is composed of a transverse belts magazine to unload machined workpieces of up to 4000 mm in length (optional 7500 mm).

The central machining area of the machine features a sound-proofed enclosure that protects the operator while also reducing the environmental noise impact.

Vertical cutting module 03

Horizontal cutting module 04

End milling module 05



Quadra L2

Machining centre

01 Automatic bar feed and workpiece unloading

Numerically controlled, high precision and high speed bar positioning system. The system is complete with a gripper to block the profile with automatic horizontal and vertical position adjustment on two CNC axes. To guarantee that each type of profile is grasped with no manual intervention, the numerical control of the gripper slewing axis is also available, which is otherwise handled manually. The loading and unloading belt magazines are used to load profiles with length of up to 7.5 m and offload lengths of up to 4.0 m, with an option of 7.5 m. If required, during loading and unloading, an optional tipping system can automatically rotate the workpiece by 90°.

02 Milling unit

The core and value of the QUADRA L2 lie in its rotating base machining section, complete with 4 or 6 work units that are controlled and can be interpolated on 4 axes: X, Y, Z, A (360° slewing around the axis of the bar). The work units are fitted with air-cooled high-frequency electrospindles, ER 32 tool connector with power up to 5.6 kW in S1. Each work unit can be equipped with an area disengagement system, by means of recirculating ball slides to increase the working capacity.

03 Vertical cutting module

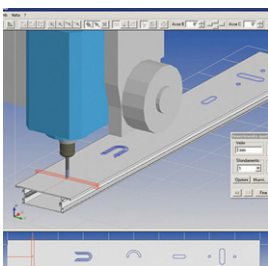
Single head cutting-off machine with a numerically controlled descending 600 mm blade and a wide cutting range: -48° to 245°. The setting of any cutting angle is fully automatic and controlled by a 4-axis CNC movement. The large blade ensures cutting and separation of the finished workpiece directly from the whole bar, after the milling and drilling operations done by the milling machine. Tow motorised vice units on CN axes at the cutting area infeed and outfeed are used to lock and handle the workpieces.

04 Horizontal cutting module

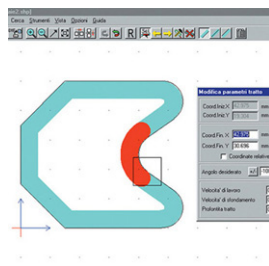
Single head cutting-off machine with a numerically controlled horizontal feed 350 mm blade and a wide cutting range: -45° to +45°. The setting of any cutting angle is fully automatic and controlled by a 3-axis CNC movement. The horizontal feed allows the machine to cut large bars and execute special cuts.

05 End milling module

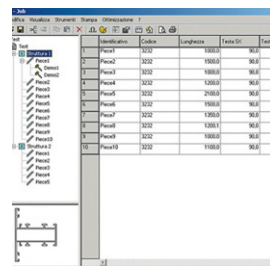
End milling unit with cutter unit with variable rotation speed up to 8,000 rpm. With quick cutter unit tool change with pneumatic control. Interacts with the horizontal cutting-off machine, with which it shares the support beam. The three cutting and end milling modules are used to offload rejects into a trap door, which can be fitted optionally with a steel evacuation belt.



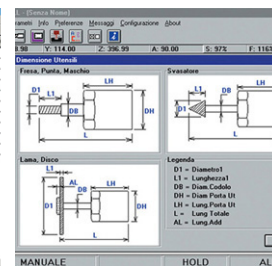
Camplus



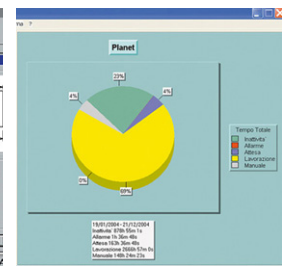
Shape



Job



Drill



Supervisor

AXIS TRAVEL

Y AXIS (transversal) (mm)	402
Z AXIS (vertical) (mm)	395
A AXIS (rotary base rotation)	0° + 360°
U AXIS (bar positioning) (mm)	9,660
H AXIS (vertical cutting-off machine vertical movement) (mm)	627
P AXIS (vertical cutting-off machine transversal movement) (mm)	880
ZG AXIS (horizontal cutting-off machine vertical travel) (mm)	190
YL AXIS (horizontal cutting-off machine transverse travel) (mm)	1300
YF AXIS (end milling unit transverse travel) (mm)	1300
B AXIS (ejector) (mm)	790

MILLING UNIT

Electro-spindle rotation unit on rotary base	0 + 360°
Air cooling electrospindles	4
Maximum number of machining units	6
Disengagement from the work field of the electrospindles by means of recirculating ball slides	○
Maximum power in S1 (kW)	5.6
Maximum speed (rpm)	24,000
Tool connector	ER 32

CUTTING-OFF MACHINE

Diameter of vertical cutting-off machine cemented carbide blade (mm)	600
Angle of vertical cutting-off machine (mm)	-48° to 245°
Power of vertical cutting-off machine three-phase blade motor (kW)	3
Diameter of horizontal cutting-off machine cemented carbide blade (mm)	600
Angle of horizontal cutting-off machine (mm)	-45° to +45°
Power of vertical cutting-off machine synchronous blade motor (kW)	0.85
Preparation for automatic start-up of swarf exhauster (mm)	●

MILLING UNIT

Max cutter unit size: diameter x height (mm)	200 x 130
Maximum rotation speed (rpm)	8,000
Cutting head sleeve diameter (mm)	27 - 32

FUNCTIONS

Workpiece milling, cutting and end-milling directly from the whole bar	●
--	---