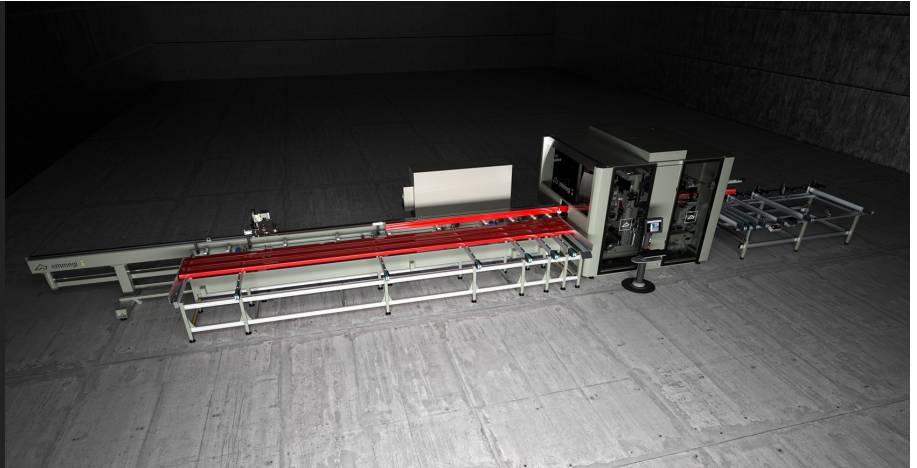


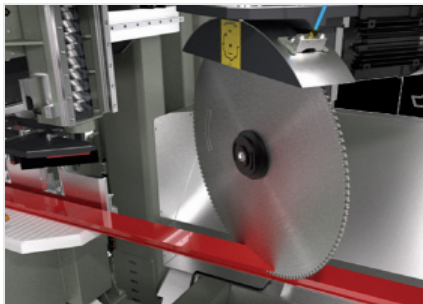


Quadra L2

CNC machining centres

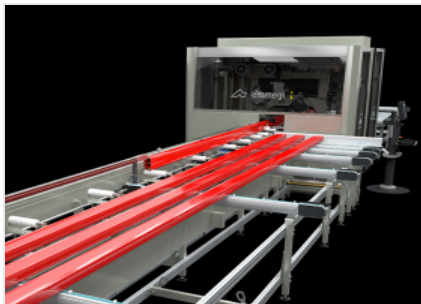


18-axis CNC machining centre for milling, drilling and cutting aluminium and light alloy profiles. QUADRA L2 is composed of an automatic magazine and a push feed system for profiles of up to 7500 mm in length, complete with gripper drive for profile clamping. Thanks to the gripper movement, the feeder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

The CNC-operated cutting module includes a 600 mm diameter circular blade with downward movement on 3 axes, with a range from -48° to $+245^{\circ}$, allowing a variety of extruded profile end milling types. The clamping and handling of the segments are done by means of two motorised vice units on CNC axes.



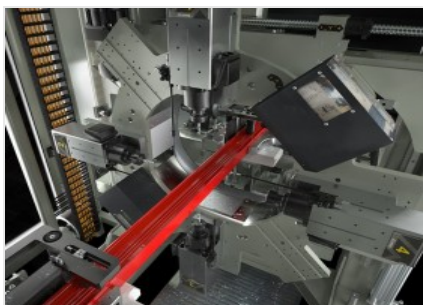
Automatic bar feed and workpiece unloading

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 CN 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.



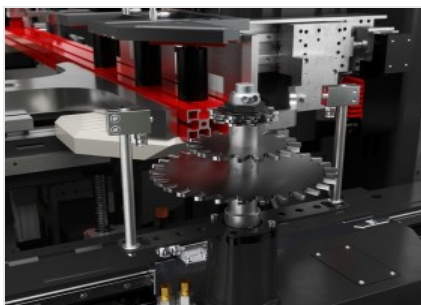
Horizontal cutting module

Single-head cutting unit with numerically controlled horizontal feed, with 350 mm blade and a wide cutting range: -45° to $+45^{\circ}$. The setting of any cutting angle is fully automatic and controlled by a 3-axis CN movement. The horizontal feed allows cutting large profiles and performing special cuts.



Milling unit

QUADRA is fitted with an exclusive turntable system on which 4 to 6 work units interpolated on 4 axes can operate at the same time: X, Y, Z, A (360° slewing around the axis of the bar). The high-frequency electrospindles are air-cooled, and include an ER 32 toolholder with power up to 5.6 kW in S1. Each unit is equipped with a work area disengagement system by means of a slide on recirculating ball shoes.



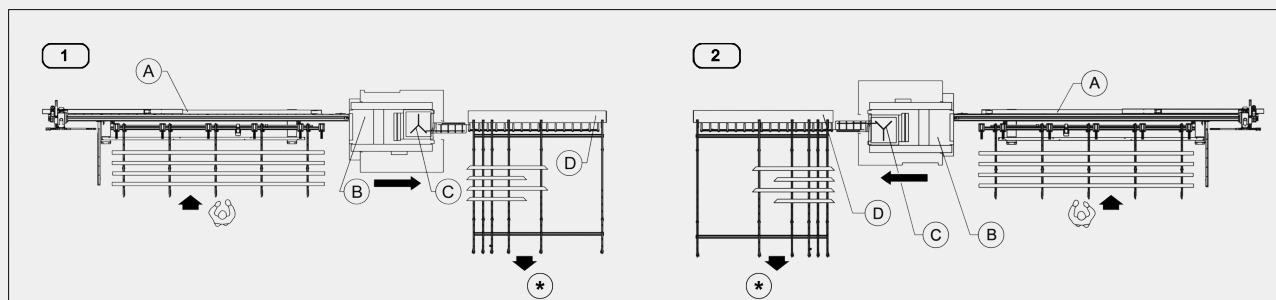
End milling module

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 unit, with which it shares the support beam. The three cutting and end milling modules are used to unload rejects into an opening, which can be fitted optionally with a steel evacuation belt.



Label printer (Optional)

The industrial label printer allows each cut profile to be identified with identifying features from the cutting list. In addition, barcode printing enables easy identification of the profile itself, which is particularly useful for subsequent machining steps on Machining Centres or assisted assembly lines.


QUADRA L2 / CNC MACHINING CENTRES
LAYOUT


Loading and unloading on the same side

- 1 - Left feed
2 - Right feed

A - automatic magazine with thrust feed system L 7500 mm
B - milling unit on rotary base
C - cutting and end-milling unit
D - unloading unit
* - finished workpieces

AXIS STROKES

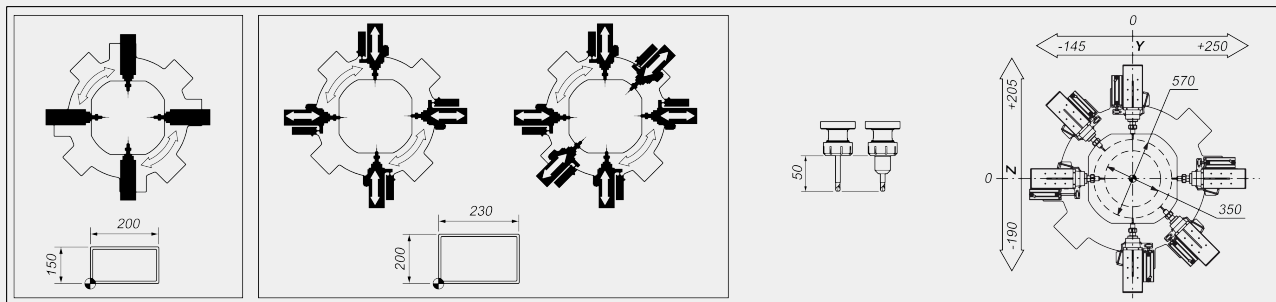
X AXIS (longitudinal) (mm)	320
Y AXIS (transversal) (mm)	402
Z AXIS (vertical) (mm)	395
A AXIS (rotary base rotation)	0° ÷ 360°
U AXIS (bar positioning) (mm)	9.660
H AXIS (cutting unit vertical movement) (mm)	627
P AXIS (cutting unit transversal movement) (mm)	880
B AXIS (motorised vice movement) (mm)	790
ZG AXIS (horizontal cutting unit vertical movement) (mm)	190
YL AXIS (horizontal cutting unit transversal movement) (mm)	1.300

MILLING UNIT

Electrospindles with air cooling	4
Electrospindle rotary unit on rotary base	0° ÷ 360°
Maximum power in S1 (kW)	5,6
Maximum speed (rpm)	24.000
Toolholder	ER 32
Maximum number of machining units	6
Disengagement from machining unit work area by means of recirculating ball slides (110 mm stroke)	○



MACHINING AREA OF THE MILLING UNIT



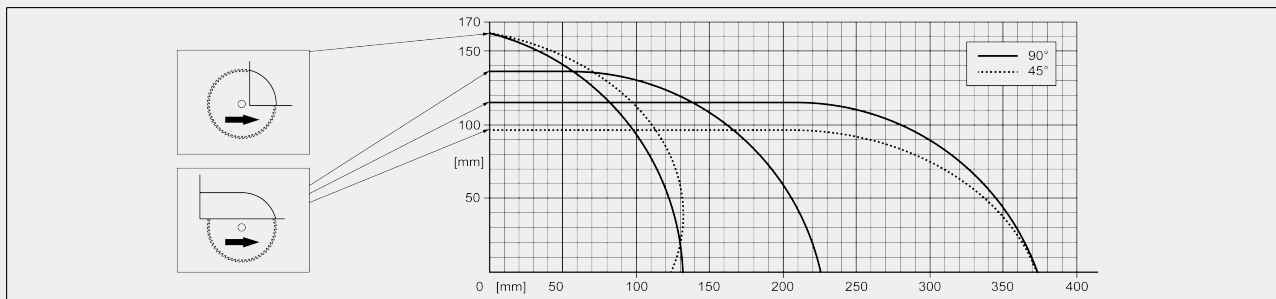
VERTICAL CUTTING UNIT

Blade diameter at carbide-tipped (mm)	600
NC blade positioning	-48° ÷ 245°
Blade motor power (kW)	3

HORIZONTAL CUTTING UNIT

NC blade positioning	-45° ÷ +45°
Blade diameter at carbide-tipped (mm)	350
Blade motor power (kW)	0,85

CUTTING DIAGRAM



END MILLING UNIT

Maximum mill diameter (mm)	200
Maximum mill pack height (mm)	128,5
Maximum rotation speed (rpm)	8.000
Cutting head sleeve diameter (mm)	32

Included ● Available ○