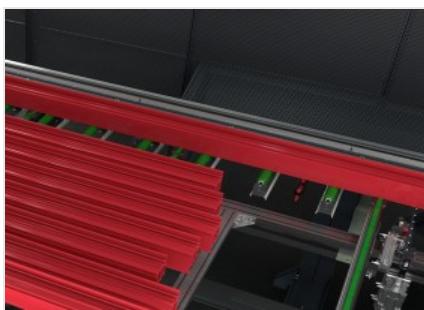


Quadra L0

CNC machining centres



CNC 13-axis machining centre, built for milling, drilling and cutting aluminium profiles and light alloys. Optionally it may be equipped with an end milling module. QUADRA L0 is an automatic magazine with a thrust-feed system for profiles up to 7,500 mm, complete with gripper movement to block the profile. Thanks to the movement of the gripper, the feeder returns to the start position allowing the loader to prepare the next profile at the same time. The milling module, the cutting module and the optional end milling module are located in the central area of the machine. There are 4 electrospindles installed on the CNC 4-axis milling module which allow working on the whole edge of the workpiece, whichever way it faces. The cutting module is equipped with a Ø 350 blade with CNC 3-axis horizontal movement. The optional end milling module operates on two CNC axes by means of a group of cutting units. QUADRA L0 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 machining unit is equipped with a sound-proof cabin in the central operating part, which, besides protecting the operator, reduces the environmental noise impact.



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.



Unloading magazine

Belt magazine to discharge and store large capacity finished workpieces. Available in two versions: for processed workpieces up to 4.0 m and, as an alternative, up to 7.5 m. The unloading magazine is preceded by a swarf and short cut extraction system which can be optionally equipped with a conveyor belt and a lifting belt to the collection bag.



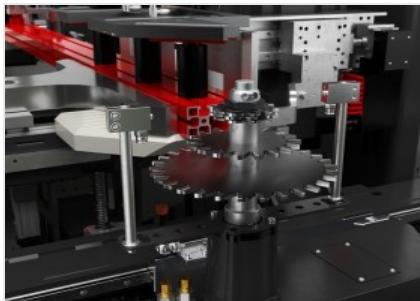
Milling unit

The core and value of the QUADRA L0 lie in its rotating base machining section, complete with 4 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 electospindles, 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.



Horizontal cutting module

Single head cutting-off machine with a numerically controlled descending 350 mm blade and a cutting range: -45° to +45°. The setting of any cutting angle is fully automatic and CNC controlled.



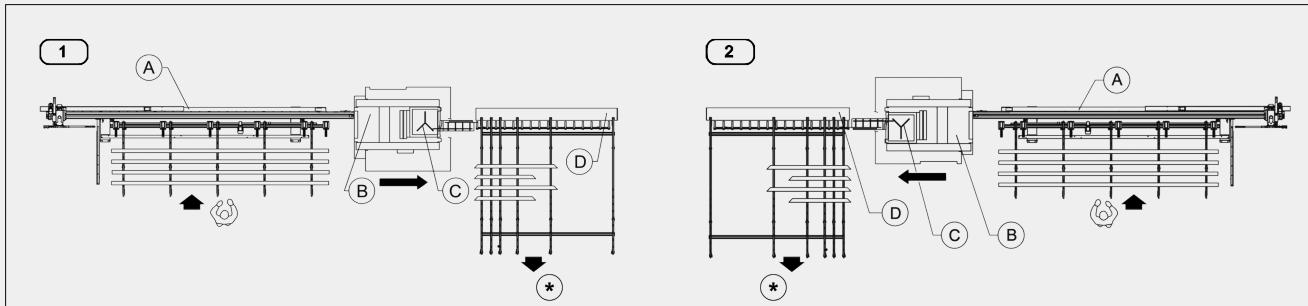
End milling module (Optional)

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 L0 / 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 unit

D - unloading unit

* - finished workpieces

AXIS STROKES

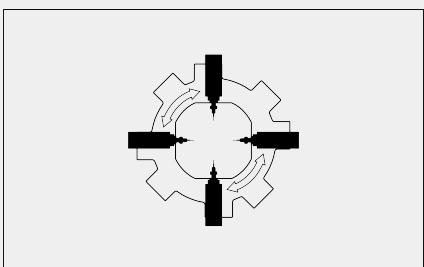
X AXIS (longitudinal) (mm)	320
Z AXIS (vertical) (mm)	395
Y AXIS (transversal) (mm)	402
A AXIS (rotary base rotation)	0° ÷ 360°
U AXIS (bar positioning) (mm)	9.660
W AXIS (gripper vertical positioning) (mm)	138
B AXIS (motorised vice movement) (mm)	790
V AXIS (gripper transversal positioning) (mm)	138
C1 AXIS (pliers rotation)	0° ÷ 180°
ZG AXIS (horizontal cutting unit vertical movement) (mm)	190
YL AXIS (horizontal cutting unit transversal movement) (mm)	1.300
QL AXIS (horizontal cutting unit rotation)	-45° ÷ +45°
WL AXIS (horizontal cutting unit blade rotation)	●
YF AXIS (end milling unit transverse travel) (mm) (optional)	1.300
WF AXIS (end milling cutter rotation)	○

MILLING UNIT

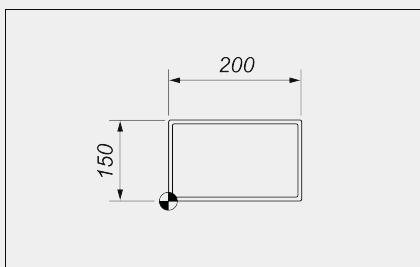
Electrospindles with air cooling	4
Maximum power in S1 (kW)	5,6
Electrospindle rotary unit on rotary base	0° ÷ 360°
Maximum speed (rpm)	24.000
Toolholder	ER 32

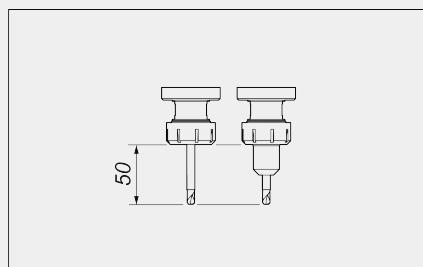
MACHINING AREA OF THE MILLING UNIT (*)
Available configurations

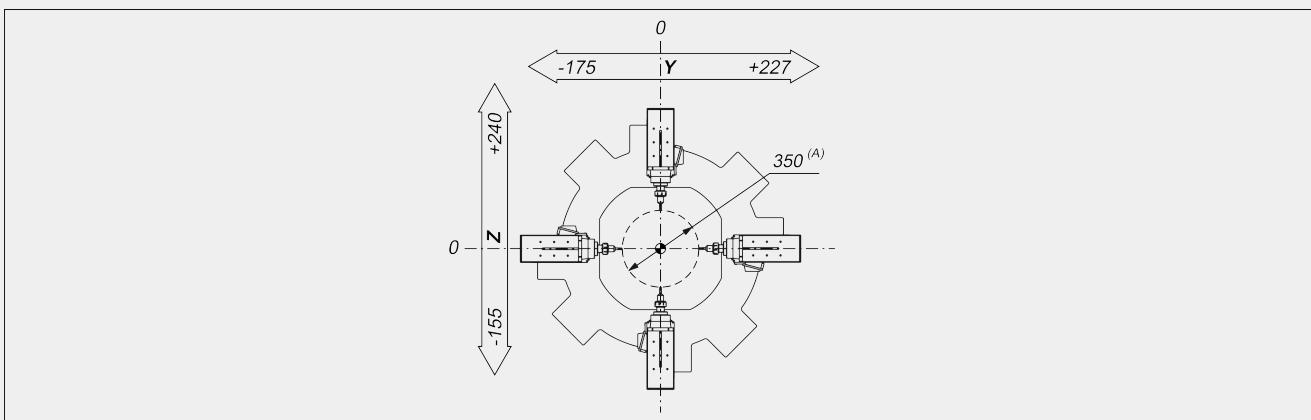
loading side view

Electrospindle configuration


4 fixed electrospindles

Machinable section

max. profile section guaranteed for machinings
on 4 faces at 90°

Reference tools

reference tool length applied to
diagrams calculation

Work area


axis travel and reference tools paths on A axes

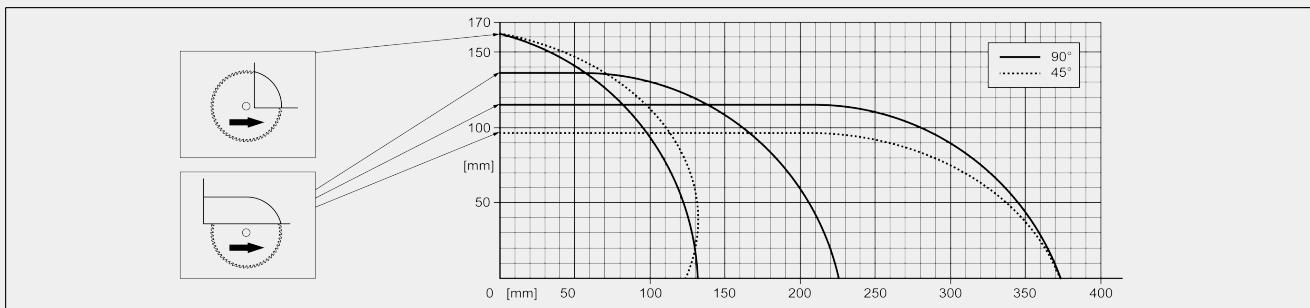
(A) electrospindles engaging the work area

(*) performance to be checked after analysis of the specific profiles and related machining operations

Warning: the size that can be machined with the milling unit does not correspond to the section that can be machined with the cutting unit. Check the working diagram of the cutting unit.

HORIZONTAL CUTTING UNIT

Blade diameter at carbide-tipped (mm)	350
NC blade positioning	-45° ÷ +45°
Blade motor power (kW)	0,85
Maximum rotation speed (rpm)	3.500

HORIZONTAL CUTTING UNIT WORKING CAPACITY (*)


(*) performance to be checked after analysis of the specific profiles and related machining operations

FUNCTIONS

Workpiece milling, drilling and cutting directly from the entire profile

WORKABLE SIDES

No. of faces (top, side, bottom)	1 + 2 + 1
Head machining	<input type="radio"/>

Included ● Available ○