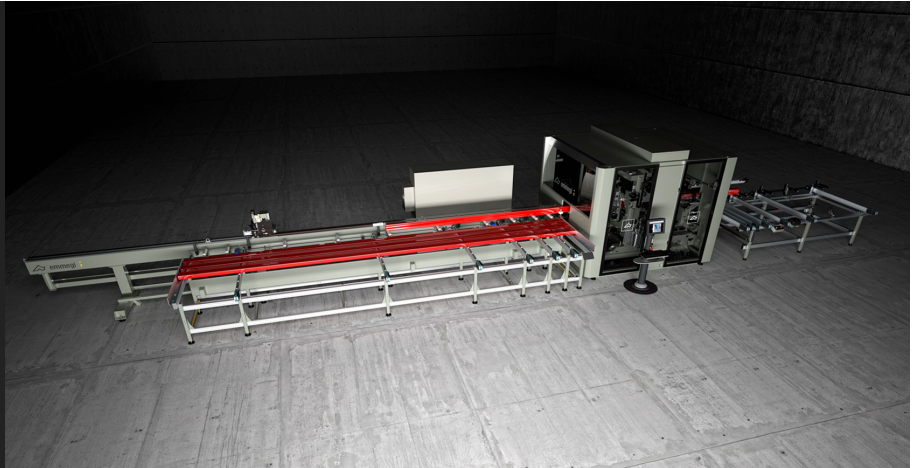


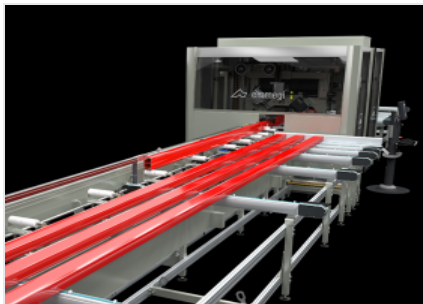


## **Quadra L3**

### **CNC machining centres**

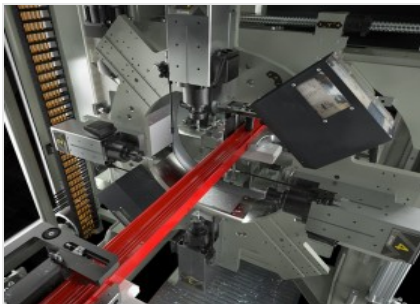


20-axis CNC machining centre for milling, drilling and cutting operations at head and end of profiles in aluminium and light alloys. QUADRA L3 is composed of an automatic magazine and a push-feed system for extruded profiles of up to 7500 mm, complete with gripper handling for clamping and traversing the profile in the operating unit. Automation enables loading the next bar by synchronising its feed with the simultaneous return of the gripper for the next pick-up. The milling module, cutting module and drilling module for head and end are located in the central part. The 4-axis CNC milling module is equipped with 4 to 6 electrospindles that make it possible to machine any side of the profile, regardless of its orientation. The main cutting module is composed of a 600 mm diameter blade with downstroke movement in three CNC axes. The secondary module operating on 4 CNC axes is equipped with a dual drilling unit that can machine on profile heads. QUADRA L3 is equipped with an automatic ejector to transfer the machined segment from the cutting unit to the unloading magazine. The unloading unit is composed of a transverse belts magazine and handles profiles with a maximum length of 4000 mm (optional 7500 mm). The central cab contains all work units, ensuring a high soundproofing standard and complete protection for the operator.



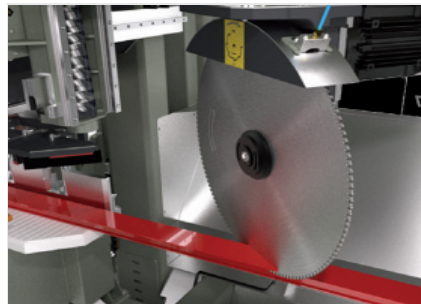
### **Automatic bar feed and workpiece unloading**

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.



### **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.



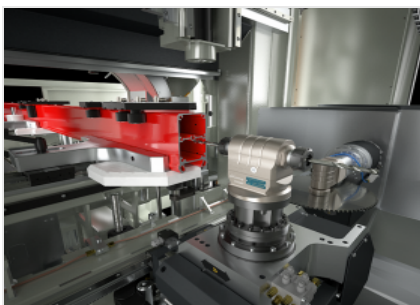
### **Vertical cutting module**

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°, 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.



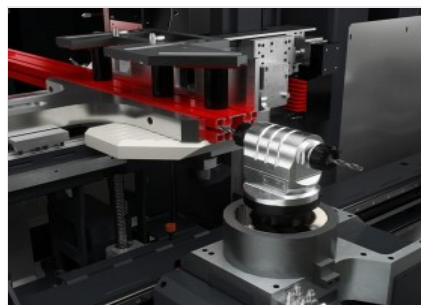
### **Horizontal cutting module**

Single-head cutting unit with numerically controlled horizontal feed, with 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 CN movement. The horizontal feed allows cutting large profiles and performing special cuts.



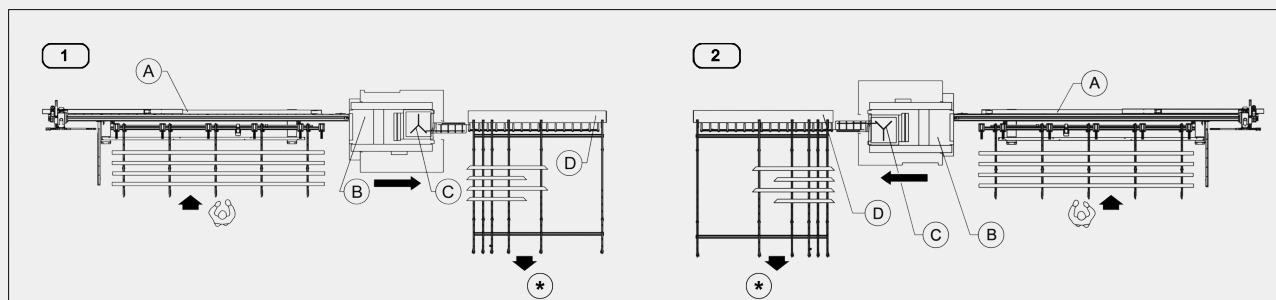
### **Milling module**

Milling unit on 4-axis CNC designed for machining at profile head and tail ends at any angle. Interacts with the horizontal cutting unit, with which it shares the support beam. The cutting and milling modules enable unloading swarf into a special hatch, which can be fitted optionally with a steel evacuation belt.



### **Drilling, milling and tapping module at the head and tail ends**

Drilling unit on 4-axis CNC designed for machining at head and end of profile at any angle. Interacts with the horizontal cutting unit, with which it shares the support beam.


**QUADRA L3 / CNC MACHINING CENTRES**
**LAYOUT**


Loading and unloading on the same side

- 1 - Left feed  
2 - Right feed

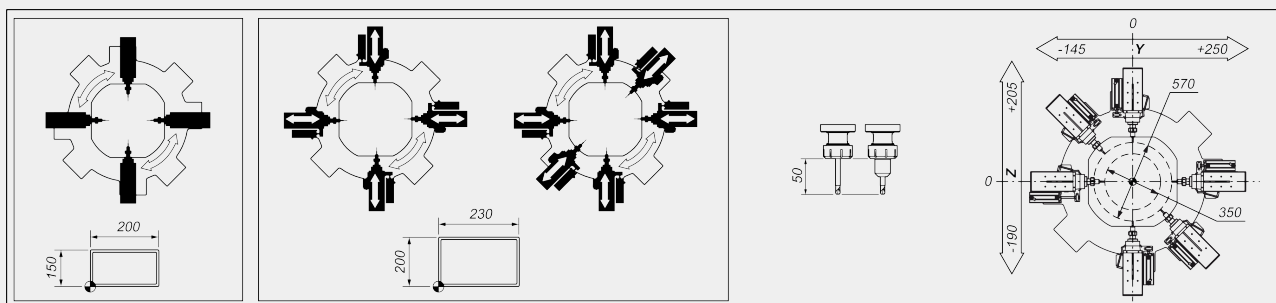
A - automatic magazine with thrust feed system L 7500 mm  
B - milling unit on rotary base  
C - cutting and head/tail drilling unit  
D - unloading unit  
\* - finished workpieces

**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)	1.200
YF AXIS (drilling unit transversal movement) (mm)	1.200

**MILLING UNIT**

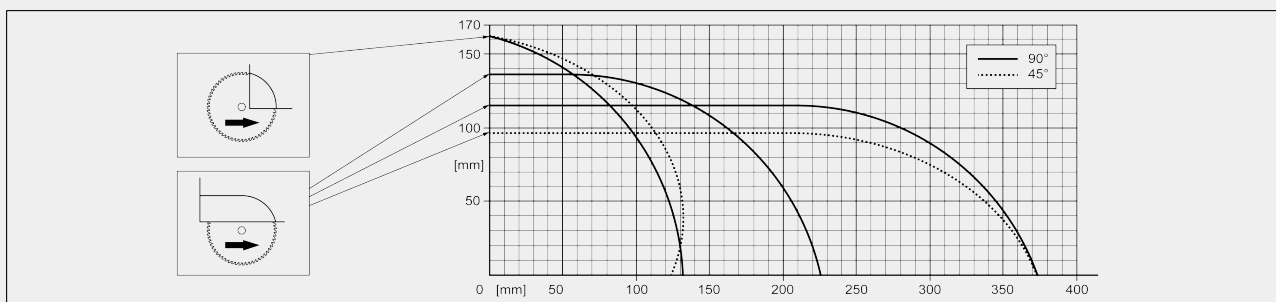
Electrospindle rotary unit on rotary base	0° ÷ 360°
Electrospindles with air cooling	4
Maximum power in S1 (kW)	5,6
Maximum speed (rpm)	24.000
Toolholder	ER 32
Maximum number of machining units	6
Disengagement from machining unit work area by means of recirculating ball slides (110 mm stroke)	○

**MACHINING AREA OF THE MILLING UNIT****VERTICAL CUTTING UNIT**

Blade diameter at carbide-tipped (mm)	600
NC blade positioning	$-48^\circ \div 245^\circ$
Blade motor power (kW)	3

**HORIZONTAL CUTTING UNIT**

Blade diameter at carbide-tipped (mm)	350
NC blade positioning	$-45^\circ \div +45^\circ$
Blade motor power (kW)	0,85

**CUTTING DIAGRAM****DRILLING UNIT AT THE HEAD AND TAIL END**

Maximum tool diameter (mm)	16
Toolholder	ER 25
Number of tools for drilling unit	2
Drilling unit motor power (kW)	0,85
Maximum rotation speed (rpm)	7.500

Included ● Available ○