

Enter  
the **High**  
**Technology**  
Era



Machining centers



Rapid prototyping



Versatile CNC milling machine



Compact CNC milling machines



3D CAD/CAM Softwares



3 D M A C H I N I N G  
& P R O T O T Y P I N G

Our  
*Solutions*  
turned into  
*References.*

charlyrobot,  
manufacturer of  
productive value since 1980

# charly4U

(Charly for you)

## CNC Milling Machine



## *The reference for compact 3D milling machines*



Charly 4U inherits the qualities which accounted for the success of the CRA.4 model, of which more than 3000 have been sold: economy, simplicity of use, delicate machining and innovative design. By adding the rigidity of a steel structure, the capacity of 160mm in Z and numerous options, charlyrobot continues to affirm its leading position on the mini milling machine market.



### The strengths:

- Machining performance and dynamic.
- Rigidity.
- Rapid reliable tool change and zero point pick-up thanks to the tool sensor.
- XYZ travel 310 x 220 x 160 mm.
- New design.
- 180° visibility.
- Lighting: integral halogen.
- Installation, takeover and immediate training.
- Compliant with European safety directives.
- 3D machining.

CHARLY4U'S EXCEPTIONAL PERFORMANCES AND INNOVATIVE TECHNOLOGY EXPLAIN ITS SUCCESS FOR INDUSTRIAL APPLICATIONS, IN FIELDS AS VARIED AS: ENGRAVING, MACHINING RERUN, JEWELLERY, MODELS, ELECTRONICS, ETC.

CHARLY4U IS ALSO THE IDEAL PRODUCT FOR LEARNING DIGITAL MACHINING IN A TEACHING ENVIRONMENT.

# charly2U

(Charly to you)

## CNC Milling Machine



*A new charlyrobot concept:  
the multi-purpose mini machining centre.*



To produce with charly2U is to have the daily benefit of a wide A2 format machining surface, an impressive travel in Z and a maximum speed of 100mm/s. It is also to have the capacity to machine in the mass of metals such as aluminium and brass, for a very low price.



### The strengths:

- Working surface of 600 x 420 mm.
- Z travel of 280 mm.
- High frequency spindle with integral electronic variable speed drive.
- Very rigid steel structure.
- Double guides by rectified steel prismatic rails with ball recirculation shoe.
- Integral greaser on each axis.
- New design.
- 3 dynamic axes interpolation.
- Numerous options: servo "brushless" motors, micro-lubrication, automatic tool changer, vacuum table, Very High Frequency spindle 40 000 rpm with coolant, fourth axis.
- Compliant with European safety directives.

**CHARLY2U IS THE COMBINATION OF INDUSTRIAL MACHINING PERFORMANCES AND THE LEGENDARY SIMPLICITY OF USE OF CHARLYROBOT PRODUCTS.**

# CNC Milling Machines

## charly4U

### Electronic

- charlyrobot CNR3 micro-step digital control.
- 3 interpolated electronic axes
- Communication: RS232C
- Power supply: 230 V single phase
- Installed power: 2 kW with HF spindle 1,1 kW

### Drive

- Stepped motors, micro-step management
- Ball screw diameter 12 mm with a thread of 5 mm on X, Y and Z
- Guides by prismatic rails with ball recirculation shoes on X and Y
- Protection of axes by lip seals on X, Y and Z
- Greaser on guide shoe and drive ball screw bushing

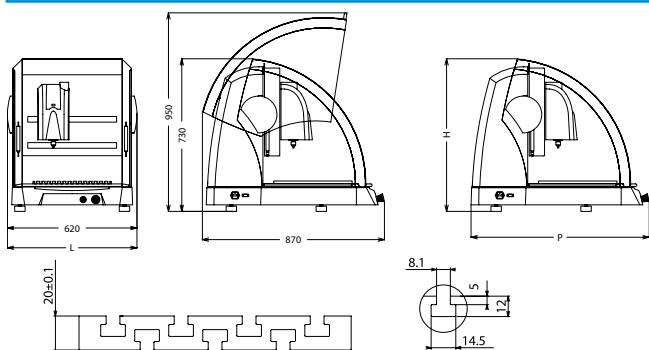
### Options

- Microlubrication
- Floating suction sensor in Z, for 2D application only.
- Standard 800 W spindle with front panel potentiometer. 8 000 to 24 000 rpm. Maximum diameter of 8 mm.
- High Frequency spindle 1,1 kW with electronic frequency converter controlled by potentiometer. 6 000 to 24 000 rpm, EX20 collet with maximum diameter of 13 mm.
- Brushless servo motors with CNR3 digital control, 3 axes extensible to 5.
- 4th rotary axis. Center punch height 60 mm, maximum part diameter 100 mm.
- 0.2 kW High Frequency spindle at 60 000 rpm.
- Depth regulating nose in Z.

### Safety

- Integral cover with 180° vision, very bright
- Compliant with the European Directive "machine n° 98/37/CE"
- "Punch button" type emergency stop
- Cover opening detection
- Electromagnetic cover locking, controlled by the spindle

FEATURES	charly4U
Stroke in X	310 mm
Stroke in Y	220 mm
Stroke in Z	160 mm
Table size	375x320 mm
Architecture	fixed gantry with mobile table in Y
Structure	Tack welded steel
Passage between column	450 mm
Passage under gantry	115 mm
Passage under spindle nose (HF 1.1 kW)	165 mm
Max. speed	100 mm/s
Max.feedrate	100 mm/s
Standard motorization	Stepper motors of 90 Ncm
Resolution	0,003 mm
Repeatability	0,02 mm
Length (with cover)	620 mm
Depth (with cover)	850 mm
Height (with cover)	730 mm
Weight in kg (with cover)	81 kg approx.



## charly2U

### Electronic

- charlyrobot CNR3 micro-step digital control.
- 3 interpolated electronic axes
- Communication: RS232C
- Power supply: 230 V single phase
- Power installed: 2 kW with HF spindle 1,1 kW

### Drive

- Stepped motors, micro-step managed
- Ball screw diameter 12 mm with a thread of 5 mm on Z
- Guides by double prismatic rails with ball recirculation shoes on X and Y, and double shoes on Z
- Protection of axes by lip seals on X, Y and Z
- Greaser on guide shoe and drive ball screw bushing

### Options

- Microlubrication
- Floating suction sensor on Z, for 2D application only.
- Standard 800 W spindle with front panel potentiometer. 8 000 to 24 000 rpm. Maximum diameter of 8 mm.
- High Frequency spindle 1,1 kW with electronic frequency converter controlled by potentiometer. 6 000 to 24 000 rpm, EX20 collet with maximum diameter of 13 mm.
- Brushless servo motors with CNR3 digital control, 3 axes extensible to 5
- Vacuum table
- 4th rotary axis. Stepper motors, center punch height 110 mm, maximum part diameter of 200 mm.
- 0.2 kW High Frequency spindle at 60 000 rpm.
- Depth regulating nose in Z.

### Safety

- Integral cover with 180° vision, very bright
- Compliant with the European Directive "machine n° 98/37/EC"
- "Punch button" type emergency stop
- Detection of cover opening.
- Electromagnetic cover locking, controlled by the spindle.

FEATURES	charly2U
Stroke in X	600 mm
Stroke in Y	420 mm
Stroke in Z	280 mm
Table size	640x680 mm
Architecture	fixed gantry with mobile table in Y
Structure	Tack welded steel
Passage between column	810 mm
Passage under gantry	250 mm
Passage under spindle nose (HF 1.1 kW)	285 mm
Max. speed	100 mm/s
Max.feedrate	100 mm/s
Standard motorization	Stepper motors of 90 Ncm
Resolution	0,003 mm
Repeatability	0,02 mm
Length (with cover)	985 mm
Depth (with cover)	1300 mm
Height (with cover)	1070 mm
Weight in kg (with cover)	170 kg approx.

