

INO MACHINERY BOXTER(XC1000) - 3+1 AXIS CNC PROFILE MACHINING CENTRE



Description:

Servo motor controlled 3 Axis CNC profile machining centre with a manual protection cover.

Thanks to the protection cover, the machine has both sound isolation and the dust isolation. Bridge type profile carriage ensures 0,1mm./1m. Accuracy.

3.0 Kw high speed double sided spindle 1ort up to 12.000 rpm. With ER-20 tool holders. Manual tool change. **Profile Processing Method:**

The double sided spindle stands in 90 degree vertical position to process the profiles from the top. Thanks to the pneumatic cylinder that rotates the spindle in 90 degrees to a horizontal position, the spindle can work from the front and from the back of the profile. With a mechanical stop, the spindle can also stop at a pre-adjusted inbetween angle automatically.

In this way, the machine can process from the top, front, back and in a certain inbetween degree automatically. The spindle has a manual tool changing system.

Uni_Link "Piece Builder" Programming Software:

With this special software, the operator will only enter the name of the profile, the type of the hinges, the type of the handles and lock cases and finally the size of the profile, then press the "start" button; the machine will immediately start machining.

The alloys that can be processed on the machine: This machine especially designed to work on aluminium and PVC Windows and doors profiles. All the operations on the windows and doors profiles are carried out easily. The XC 1000 has profile clamps that are manually positioned according to the positions assigned by the CAD-CAM software. All clamps are mounted on the machine with linear bearings and move on linear guides.

200 mm X 175 mm Profile processing from the 3 sides of the profile.

Waste pieces are isolated by the machine cover and extracted by the operator.



Axis information:

X axis net processing length: 3.000 mm. / with the second stopper 6.000 mm.

Y axis net processing width: 200 mm..

Z axis net processing depth: 175 mm.

The body:

Vibration free steel chasis, processed with the highest accuracy before mounting the mecanichal accessories. **Spindle Heads:**

Double Sided Spindle: 3.0 Kw 12.000 rpm with manual tool change and rotating with the help of a pneumatic cylinder.

Axis technical information:

X axis is working on rack and pinion with brushless servo motors and guided by linear guides with

60 mt./min speed. 1,6 Kw – 4.0 Nm – 4.000 rpm. – with 1/10 geared 90 mm body.

Y axis is working on rack and pinion with brushless servo motors and guided by linear guides with

60 mt./min speed. 1,6 Kw – 4.0 Nm – 4.000 rpm. – with 1/10 geared 90 mm body.

Z axis with a screw mill and brushless brake type servo motor with a speed of **20 mt./min.**

1,6 Kw – 4.0 Nm – 4.000 rpm.. – with 20 pitch 20 diameter screw mill and 1/3 ratio belt&coupling.

All servo motors are working with **ABSOLUTE ENCODERS** so there is no need for making homing.

Technical Parameters:

Total installed power: 7 Kw / 16A / 400V / 50-60 Hz.

Air pressure and air consumption: 6-8 Bar. – 70 L/min.

Packing dimensions: 4.250 X 1.600 X 2.150 mm.

Weight: 1.800 kgs.







Pneumatic Profile Clamps:

200 mm. clamping section.

Manually positioned.

Thanks to the special design of the clamps, that for the machining Windows and Doors and Curtain Wall profiles, the loading and offloading is extremely easy.



Air Cooling electrospindle: High speed spindle with ceramic bearings. Standard ER 20 tool holder. Manual tool changing. Spindle Power: 3.5 kW Spindle Torque: 2.9 Nm Spindle rotation: 12.000 rpm (adjustable between 0-12.000) Tool Holder Set - Optional Collet Set - Optional





INDUSTRIAL CNC CONTROLLER – ESA AOTOMOTION – www.esautomotion.it

12 Axis RTCP (Rotation Tool Center Point) type of 4 Axis simultaniously interpolating real CNC controller.

Italian technology with the software and all the hardware.

15.6" Touchpanel + the CNC controller + the power supply + servo motors + servo drivers with Can-Open.

Each axis has "Absolute Encoder" for avoiding the problems caused by homing and home sensors. The Machine does not need to g oto home position each time the operator turns on the Machine.

All power & encoder cables, driver mounted motor communication cables and all motor sockets are designed by ESA to be complete problem free and for perfect communication of the axis.

Movable CNC controller terminal mounted on the Machine body with the PC + keyboard + Mouse + operator buttons embedded on.

Licanced Windows10

Electric system and the cabinet with the cooling system. A/C is opitonal.

Easy to get support over teamviewer connection.

AC Inverter for adjusting the speed of the spindle 0-12.000 rpm.

Automatic tool measurement probe

Handwheel

Dry run

Changing the home position

Equipment:

Referance points:

2 pieces manually operated. For using the Machine with 2 processign stations and also for machining profiles longer than the measure.

Both endings of the Machine is opened as a standard accessory.

Profile clamps:

4 pieces are standard.

CAD-CAM Software:

Uni_Link INO-OnBoard Software + Piece Builder - 1 licance for the Machine + Office Software is optional.

Manually opening and closing machine enclosure covers.

Spray mist cooling system with oil tank mounted on the Z axis.

User manuals.

CE certification.



Routing heads:

High speed spindle. Air cooling system. Spindle 3.0 Kw 18.000 rpm. ER-20 Type Tool Holders – Optional 5-6-8-10-12 mm Collet Set – Optional Cutter set – Optional





UNI_LINK 3D CAD-CAM:

• Design, R&D and application are carried through the vast experinece of ino 7ort he7n team and Uni_Link engineers in Belgium.

- The perfect optimization of economic profile working in 3,4 and 5 Axis.
- Importing of DXF files and converting them to 3D images.
- Generating G-codes over the DXF files
- Understanding of the 7ort he7ns on the DXf files and auto-tooling
- Also availbale in Office verson with a perfect simulation interface, so that the one working at the Office will also prepare the profile machining programs just like he is beside the machine.
- Incredibly user friendly 7ort he operator and also 7ort he Office responsible who will prepare the machining files in the Office.
- CNC clamp management and collusion control.
- Auto positioning of the profiles on the clamps according to the 7ort he7ns on the profiles.
- Macro creation for each operation and placing them on the profile automatically.
- Independent form the size of the prfoile it is possible to place any operation on the same profile in different legth parametricly.
- All the profiles that will be machined, will be listed on the machine HMI and operator wil lonly have to
 press the start button.
- Ability to work with all Windows and Doors production softwares like Schücal or Orgadata or similar.
- Ability to prepare cut-list optimization 7ort he double mitre saw and import in .csv format. Optionally
 barcode genaration from the cutting machine and reading by the machining center is availbale.
- This software is the easiest software in the market and the richest software also in capabilities.

	erk 📃		B	m.		X	\$.					X 0 Y 0				
(Openen	Opslaan als	Profielen	Gereedschap	Tool Store	F3	Edit Paramet	ers Multipie	ce Piece-	node		Z O A O			Y	2
A	Serie	Profile	Color			Length	Id	Left Angle (H)	Right Angle (H)	Left Angle (W)	Left Angle (W)	Todo D	one	Tool Status	Cla	
	SCHUCO	372220	rienwit	structuur/zijd	legrijs structuur	2385	1	90	90	90	45	1 0) (011/012 OK	1	
	SCHUCO	372220	rienwit	structuur/zijd	legrijs structuur	2385	2	90	90	45	90	1 0)	013/014 OK	2	
	SCHUCO	372220	rienwit	structuur/zijd	legrijs structuur	1030	3	90	90	45	45	1 0)	004/004 OK	1	
	SCHUCO	395530	rienwit	structuur/zijd	legrijs structuur	2318	4	90	90	45	45	1 0)	009/010 OK	1	
	SCHUCO	395530	rienwit	structuur/zijd	legrijs structuur	2318	5	90	90	45	45	1 0)	025/026 OK	2	
	SCHUCO	395530	rienwit	structuur/zijd	legrijs structuur	932	6	90	90	45	45	1 0)	004/004 OK	1	
	SCHUCO	395530	rienwit	structuur/zijd	legrijs structuur	932	7	90	90	45	45	1 0)	004/004 OK	1	
								_	+						+	_
	x					· · · ·	⊕ * X=1032.	81	•				+			
A	x	Zone 1			Zone		Ť.	81	· Zone 3			, .	žo	nne 4	•	

C:\Uni_Link\Macros\VB\Macro1.mcr										- 0	×
Macro List Utils ?											
□ □ □ □ [™] M □ / □ [∞] 2 1 [™] 1		■ <i>¥</i> =	= /4								
Select machining											
Slot X-Var Rectangle 4 Copy To									and a state of the		
C→ Cylinder ← L<>R							and the second sec				
Ilade						and the second second	The second s				
FLN Figure								* +			
Profile: PSerie = VB PProfile = 02002465 PLength = 600 X1 X1 = L-300 <	PWidth = 63.01	PHeight = 97.54	PLHAngle = 90	PRHAngle = 90	-	PLWAngle = 90	PRWAngle = 90				^
X1 X1 = L-300 V1 V1Width = W V1Height = H-47 V1Angle = 0	V1DepthFrom = 2	V1DepthTo = -20	V1DepthSteps = 2								
V2 V2Width = 18 V2Height = H-16 V2Angle = 90	V2DepthFrom = 2	V2DepthTo = -12	V2DepthSteps = 1								
V3 V3Width = 0 V3Height = H-47 V3Angle = 180	V3DepthFrom = 2	V3DepthTo = -34	V3DepthSteps = 2								
MH1 MTool = FX X1CorrX = 0 V1	MHoleDiam = 14					MEmpty = 0	MGroup = 0	MPriority = 0		V1CorrW = 0	
MC1 MTool = FX X1CorrX = -92 V1	MCvlMaxDiam = 17.5	MCvlMinDiam = 10.5	MCvlLenath = 34	MCvIRotation = 180	MC1	MEmpty = 0	MGroup = 0	MPrioritv = 0	MC1	V1CorrW = 0	>







