

**Offer**

327/24

**Date**

28/05/2024

**Customer**

SC TERRA MACHINES SRL

**Validity**

27/06/2024

**Address**

 TERGU NEAMT  
 PETRA NEAMT  
 ROMANIA

**Model**

FOX 16

**Reference**

Mr. Barbu Neculai

## Offer

### 1 FOX 16 S **FOX 16 CNC MACHINE**

Numerically controlled machining center with fixed working table and mobile gantry with three continuous interpolating axes in space, suitable for the machining of wood, plywood, mdf, cardboard, thermoformed and plastic materials.

#### STRUCTURE

The structure of the machine, with **MOBILE PORTAL and FIXED WORKING TABLE** allows to occupy at least the space available in the company with the same useful strokes as the models with moving tablel.

The pieces are always fixed to the table, as movements along the three axes X, Y and Z are carried out by the gantry which supports the operating heads.

From a dynamic point of view the constant driven mass guarantees an excellent fluidity of movements. The quality of the movement is guaranteed by the **double motorization (one on each side) managed in coupling by the cnc.**

#### BASE AND GANTRY

**The base and gantry are made of steel with a high thickness and abundantly ribbed. This type of construction makes it possible to create a system of great stiffness.**

#### MOVEMENTS

**The axes are moved using precision systems: X and Y axis by RACK-PINION and REDUCER while the Z axis by SCREW AND SPIRAL NUTS WITH SPIRAL RECIRCULATION. Screws and nuts are protected by special smoothing systems designed to prevent the infiltration of dust into the kinematics. The movement of the X**

axis is ensured by a **DOUBLE MOTORIZATION** system (one on each side) of **GANTRY TYPE** with instant control of the position by the **CNC** which determines an absolutely symmetrical portal advancement. Sliding takes place on prismatic guides. The system is protected against infiltration by special leveling systems. The guides rest in dedicated milled housings.

#### **TECHNICAL DATA**

**Quick speed X-axis: 24m/mn**

**Quick speed Y-axis: 24m/min**

**Quick speed Z-axis: 15m/min**

**Vectorial speed 35m/min**

**USEFULL WORKING TABLE 3200 X 1660 mm**

**Max. thickness panel passage: 200 mm**

#### **ACCURACY**

The positioning accuracy is guaranteed by coaxial **ROTARY ENCODER** with resolution capability set to  $\pm 0.05$  mm and angular resolution set to  $\pm 0019^\circ$

#### **PROTECTION SYSTEMS**

The CE machine is equipped with **FULL BUMPER** on the front and rear side. The beam and the operating units are totally enclosed in a special protective casing with side windows in lexan.

#### **WORKING TABLE**

The working table is made of bakelite with **SANDWICH** structure

It consists of a set of two layers within which a pre-chamber is obtained such as to guarantee a distribution of the depression over the entire working area through pick-up grilles arranged in a 50 x 50 mm grid. The working table is squared with a 50 mm center distance and has a rectangular channel suitable for circumscribing the locking area according to the pieces to be worked. The depression can act on the entire table or can be exercised separately in four zones manually selectable.

#### **FEED PUMPS DEPRESSION TREATMENT**

The number of suction cups varies according to 2 for each X-axis run. .

#### **VACUUM SYSTEM**

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The vacuum system is equipped with pressure switches that allow monitoring of the vacuum level reached. The connection to the pump is ensured by appropriately sized solenoid valves.

## **BELLOWS DUST EXTRACTION FOR 3 AXIS**

Axial suction with 2 on / off positions to guarantee maximum efficiency during the various processing cycles. The system is managed by CNC.

## **MACHINE SETUP**

The machine is equipped with a **MOBILE PALMARE KEYPAD** containing the main operating functions of the machine so that it can operate near the piece if it appears to be too far from the control console.

## **MOBILE CONSOLE**

The machine is equipped with a **MOBILE CONSOLE COMPLETE WITH MONITOR, KEYBOARD and MOUSE** containing the main operating functions of the machine so that it can operate near the work area.

## **ELECTRIC EQUIPMENT**

The electrical cabinet is built according to CE regulations with the external voltage selector installed. The axis drives and the **NUMERICAL CONTROL** as well as all the power parts of the machine are placed in the cabinet

## **LUBRICATION SYSTEM**

It is equipped with a **MANUAL LUBRICATION SYSTEM WITH A CENTRALIZED PUMP.**

## **NUMERIC CONTROL**

The machine is equipped with a **OSAI OPEN SERIES NUMERICAL CONTROL** with a PC equipped with **WINDOWS 10** and **I-5, I-7** processor or higher.

## **OPERATOR INTERFACE combined with the control**

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is equipped with an operator interface inserted on a mobile console separated from the electrical cabinet. The operator interface will be installed and configured on the PC with Windows operating system.

The machine does not require particular environmental conditions: it must be installed inside an illuminated, ventilated building with a solid and level floor.

## 1 FX02BA1 SET OF 3 REFERENCE STOPS FOR BAKELITE TABLE

Set of 3 reference stops. The stops grant the correct positioning of the panel ensuring a reference to the mechanical zero.

N.B. The use of stops reduces the working area by 40 mm both along the X and Y axis.

## 2 FX03C 100 MC/H VACUUM PUMP

100 mc/h vacuum pump. It is driven by a 3.3 Kw three-phase asynchronous motor and creates a vacuum by rotating high-strength abrasive blades

This system guarantees the absence of vibrations and the maximum silence of the vacuum system.

Air cooling guaranteed by a fan installed inside the structure.

## 1 FX06A 13,2 KW AIR COOLED ELECTROSPINDLE ISO 30

13,2 kW electrospindle with air cooling system. Rotation on ceramic bearings with permanent grease lubrication. ISO 30 tool holder with automatic connection device and pneumatic release.

The power of the spindle motor allows excellent take-off work even at low rpm.

### TECHNICAL DATA:

- 11 kW (15 HP) in class S1
- 13,2 kW (18 HP) in class S6
- ceramic bearings
- right and left rotation
- CNC programmable rotation speed from 500 to 24,000 rpm

Complete with dust hood.

1	<b>FX07CA 10-POSITION LINEAR TOOL MAGAZINE</b>  <p>Linear tool magazine placed at the end of X-axis stroke. The tool holder attachments are made of Teflon with an aluminum core.</p> <p>Max.diameter tool mm 120 with adjacent free stations Max.diameter tool mm 60 with adjacent positions occupied Max length tool mm 150 Max single tool weight Kg. 3 Max total weight Kg. 30</p>
1	<b>FX08B TOOL PRESETTER FOR LENGTH MEASUREMENT</b>  <p>to configure the tool length, complete with software and coverage. This system allows the immediate and extremely precise configuration of the tool length since the electrospindle with the cone and the installed tool, positions itself on the presetter itself touching it with a slight pressure. In this way it detects the exact length of the cone/collect/tool.</p>
1	<b>FX12A TELESERVICE</b>  <p>It allows an immediate and direct access to the NC via internet (RJ45 port or wireless key). This guarantees the possibility to check the machine data, user programs, input/output signals and to install software updates</p>

## 1 SW 02A ASPAN SE

ASPAN SE is a software of the ASPAN family. Through the use of simple commands, allows users to draw their production parts quickly and easily (CAD environment) and then generate the optimized machine programs needed (to the CAM environment).

### 1) CAD:

- Generic drawing commands ( line, arc, circle, polyline,...)
- Commands to set the entities data ( depth, diameter, ...)
- Commands to modify entities ( delete, move, copy, totate, ...)
- Basic commands for paths management (Join, chamfer, cut, extend, ...)
- Parameterization features (limited functionality, not all parametric formulas are available for the Aspan SE version)
- Import/Export DXF file (POINT, LINE, ARC, CIRCLE, POLYLINE, ELLIPSE)
- Vacuum Cups management

### 2) CAM:

- Tooling management (length and tool diameter, work speed, ...)
- Automatic tooling assignment
- Manual assignment to holes
- Manual assignment to routings
- Assignment of lead-in/lead-out paths to routings ( Line tangent, arc tangent, rampat the Z, ...)
- Multimachining (working with several tools on the same geometry)
- Manual machining sequence management
- 2D Simulation
- Part-program creation

### 3) ASPAN SE can also be equipped with the following optional modules:

- Commands to create 3D entities ( Tilted plane, hole/arc/tilted line )
- Nesting (single/multiple panels, parts list, graphical reports )
- Create/Print Labels utility (customizable by the operator)
- 2D Vectorializer ( bitmap to vector)
- Artistic CAM 3D (conversion of bitmap to gray scale in three-dimensional)
- Door management (parametric realization of doors)
- Cabinet mamagement (parametric realizazion of cabinet and shelves)

ASPAN SE may at any time be upgraded to the full version of the software ASPAN PROSPECT.

**TOTAL: € 76.354,00**

## General terms and conditions of sale

**Delivery:**

**Goods:**

Ex-works

**Packing:**

Not necessary

**Test:**

COSMEC TECHNOLOGY Loc.Fosci 28 - Poggibonsi (SI) - ITALY

**Start-up and training course:**

Included

**Warranty:**

12 months at End-User's site

**Payment:**

**Voltage:**

380 V 50 Hz 3 ph. + GND

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