5-Axis machining centre with fixed worktable and mobile gantry, designed for manufacturing complex-shaped and large-sized objects. It meets the needs of many sectors, from design elements in wood to applications for plastic and advanced materials.

PERFORMANCE AT THE TOP
Designed for productions without limits of shapes and materials. The freedom of the 5-axis technology at the service of multiple applications: panels, curved plywood, elements in solid wood, plastic, composites, resins, light alloys, prototyping, modeling and molds.

GREAT FINISH QUALITY
Precision and finish quality at the highest level on the entire work area, thanks to the powerful machining head for heavy duty processing.

ERGONOMIC AND SAFE
The new Pro-Speed system with horizontal photocells and bumpers on the movable guard combines maximum access to the worktable and total operator safety during work piece loading/unloading. During machining, the top speed can be reached for maximum productivity.
RELIABLE TECHNOLOGY
The SCM aluminium multi-function worktable ensures maximum reliability. Characterized by a perfect lasting planarity, it does not deform despite changes in ambient factors such as temperature and humidity.

LARGE MACHINING VOLUME
The increased stroke of the vertical axis allows machining of work pieces up to 500 mm in height, using tools also with large dimensions.

SMART PROGRAMMING
Thanks to the Xilog Maestro software suite developed by SCM, programming is easy, intuitive, effective.
- Maestro 3D integrated module for 5-axis machining of 3D surfaces
- Maestro Pro View simulator, for visualizing in advance the machining operations to be carried out on the machine on a PC in the office.
The unique construction geometry of the 5-axis machining unit gives high power and compact dimensions.

The electrospindle, designed and manufactured by SCM, develops an output of 17 kW and reaches maximum rotation speed of 24000 rpm. Excellent performances making the machine optimal both for routing with heavy stock removal and profiling at high rotation speed.
It is possible to process work pieces with 500 mm working height, on both upper side and lateral sides, thanks to the high Z-axis vertical stroke.

The robust structure of the machine and the architecture of the machining unit allow the tool to move freely around parts of complex shape, and perform three-dimensional machining with high precision and maximum finish quality.
accord 50 fx
Prisma 5-axis machining unit

Particular attention is paid to machine cleaning and clean working environment. The coaxial double exhaust hood allows the extraction of shavings and sawdust in the various use conditions.

While routing with the tool in vertical position, it is utilized the inner hood, which is more effective for this kind of operations, thanks to its reduced dimensions.

During 5-axis routing, it is utilized the outer hood, which has adequate dimensions to cover all tool movements.

The conveyor is particularly useful during machining with tools in vertical position and heavy stock removal. It is automatically directed towards shavings ejection.
GUARANTEED PRECISION OF THE 5-AXIS MACHINING HEAD
RTCP – Rotation Tool Center Point System
It is possible to reset the parameters of the 5-axis machining head automatically, thanks to a self-calibration system and a software function available with the machine, both developed by SCM.

The TTS (Total Torque System), unique to SCM, mechanically locks the rotating axis during machining with tools in vertical position, increasing system stiffness.

Prisma machining unit geometry allows it to operate at angles of up to 10° below the work piece supporting surface.
accord 50 fx
aggregate machining units

BORING UNIT
We provide the optimum solution to any boring needs with our wide range of modules, equipped with vertical and horizontal independent boring units.

RO.AX SPINDLE, FOR PERFECT BORING
There is no backlash during machining with the new RO.AX (Rotoaxial spindle technology). The spindle with the best performance on the market, with speeds of rotation up to 8000 rpm.

For cutting, a dedicated blade unit can be fitted, either in a fixed position or with adjustable angle 0-90°.
**RAPID 12 ON BOARD**

12 position circular store anchored to the machining head. The tool changeover takes place during drilling operations reducing cycle-time.

**RAPID 24**

24 position circular store: the universal solution for machining panels and non-wood materials.

**TRC 32/TRC48**

32 or 48 position chain store, anchored to the mobile gantry, developed for managing heavy and large tools.

**TR 12**

12 position straight store, to the right of the worktable, so that all tools are always available within the machine.
MULTI-FUNCTION WORKTABLE
Suitable for any need of referencing and clamping. The rigid aluminium structure guarantees lasting perfect planarity. For improved precision, the worktable is grooved directly on the machining centre.

INTEGRATED VACUUM SYSTEM
The vacuum system is formed directly within the extruded aluminium parts and distributed on a grid of holes spaced at 120 mm on the whole surface of the worktable.

MPS SUCTION CUPS
The network of holes and channels allows suction cups to be positioned and secured according to requirements. SCM makes available a wide range of suction cups with different shapes and sizes. The laser pointer helps the operator with the set-up.
JIGS OR FIXING EQUIPMENT
On the entire surface of the worktable there are T-grooves allowing any additional equipment not supplied by SCM to be secured in place.

NESTING
The vacuum system uses channels sized for the passage of a large volume of air, to guarantee direct, optimum work piece hold-down.
MATIC WORKTABLE
Fully automated, managed directly by the machine’s Xilog Maestro software. It allows complete set-up in seconds.

The bars and bases are moved using a rack and pinion direct transmission system and have independent drive units. These exclusive, high-tech design solutions allow fast, precise positioning.
Switching from suction cups to clamps and vice versa is quick and easy. The quick coupling developed by SCM allows operators to change the accessory at the press of a button.

The high component passage allows the use of locking clamps with 145 mm height (H145). Machining with double profile tool is possible, together with processing of elements with different thickness, from 60 to 120 mm, without the need of manual set-up.

Clamps of different types: with round or square base, vertical or horizontal, optimal for the pneumatic locking of any work piece.
accord 50 fx
worktables

START WORKTABLE
Worktable with manual movement: pneumatic locking clamps or suction cups can be used on each movable bar. It provides maximum freedom for machining elements having different shapes and sizes.

PILOT WORKTABLE
Semi-automatic worktable: the operator is guided by the machine for worktable preparation. The position of the hold-down elements is shown on a colour touch-screen display on the “TecPad” remote console.
Positioning values are displayed and highlighted in real time until the correct position is reached. The risk of collisions is eliminated: special sensors detect any incorrect positioning and prevent the program from continuing.

The quick coupling and “tubeless” vacuum transmission system make the worktable freely configurable depending on the geometries of the work pieces to be machined.
**safety systems**

**PROSPACE**
The bumper system designed to minimise the machine footprint, guarantees maximum operator safety, with a **top speed of 25 m/min.**

**PROSPEED**
In addition to the bumpers there is a barrier composed of horizontal photocells which detect operator presence. In this way, when the operator is outside the loading zone, the **machine’s top speed goes up to 95 m/min.**, reducing cycle time and increasing productivity.

The control unit is positioned on a mobile console for the free use by the operator.
MAESTRO 50 fx
Xilog Maestro software suite

MAESTRO
UNIQUE CREATIVITY

We provide the technical know-how so that you can free your creativity.

CAD/CAM programming software to design all the production processes. Developed in Windows® environment it ensures easy programming with an advanced, simple and intuitive sketching environment that features all the tools necessary to design the parts, their layout on the worktable, tools management and the relative machining operations. All the procedures are contained in a perfectly integrated and high performance software.

Advanced programming ensures great performance.

MAESTRO 3D
UNIQUE IN THE CREATION
OF 3D OBJECTS

The module integrated in the Xilog Maestro suite is designed to program three dimensional objects on 5-axis machining centres. It includes powerful CAD tools to manage extremely complex surfaces. The best solution for a wide range of 3 and 5-axes machining operations.

Any object, however complex, can be simply and quickly created.

MAESTRO WD
UNIQUE IN DESIGNING
DOORS AND WINDOWS

The application included in the Xilog Maestro suite is designed for planning and programming each single part of linear and arc-shaped windows, doors and shutters. The user starts by defining the wall opening and selecting the model to be produced, then the software generates all the individual parts to be produced in the machine, with a state of the art graphic editor. Maestro WD adds planning and programming to the functions used to manage the worktables and the macro-machining operations for door and window frames.

Door and window frames of any dimension and shape with the maximum ease and execution speed to achieve a customised product.
MAESTRO APPS
UNIQUE KNOW-HOW
Maestro APPS is a library of programming functions that are always available and easy to use, developed by the SCM for the production of parts for doors, windows, stairs, furniture and furnishings. A simple “click” allows users free access to the SCM technological know-how.
Save time during the workpiece planning and achieve a faster and more efficient production.

MAESTRO PRO VIEW
UNIQUE 3D DISPLAY
Maestro Pro View is a 3D simulator that allows users access to a three dimensional model of their machine in their office and view the operations that will be carried out during the production in advance on their PC.
• Real representation of the workpiece being machined and the machine parts
• Real representation of the material removed during machining
• Generation of collision control reports
• Prevention of any possible programming errors
• Generation of work cycle execution times reports.
Calculation of the production costs and greater production efficiency.

MAESTRO MSL CONNECTOR UNIQUE CONNECTION
Simple connection with external software houses.
TheXilog Maestro suite features the MSL Connector which allows external softwares to interface with all SCM machining centres and makes it easier to manage the machining strategies.
Their specialisations, our control.
The software-houses will no longer have to assume worktable management (workpieces positioning and hold-down, tool paths). SCM will provide the complete machine management.
Eliminates the customisation costs for the external software house, resulting in a considerable saving for the client.
**accord 50 fx**

**technical features**

<table>
<thead>
<tr>
<th>NUMERIC CONTROL MACHINING CENTRE</th>
<th>AXES</th>
<th>X-Y-Z axes speed</th>
<th>m/min</th>
<th>95 (25) - 80 - 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACHINING AREA X</td>
<td>Bars worktable</td>
<td>mm</td>
<td>3680 - 5020 - 6360</td>
<td></td>
</tr>
<tr>
<td>Multi-function worktable</td>
<td>mm</td>
<td>3650 - 4970 - 6170</td>
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<tr>
<td>MACHINING AREA Y</td>
<td>Bars worktable</td>
<td>mm</td>
<td>1680 - 1905</td>
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<tr>
<td>Multi-function worktable</td>
<td>mm</td>
<td>1600 - 2120</td>
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<td>WORKPIECE PASSAGE</td>
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<td>MACHINING HEAD</td>
<td>Electrosindle power</td>
<td>kW</td>
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<td>Max. rotation</td>
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<tr>
<td>TOOL MAGAZINES</td>
<td>Tool store to the machining head</td>
<td>n° pos.</td>
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<tr>
<td>Rear tool store</td>
<td>n° pos.</td>
<td>24 - 32 - 48</td>
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<td>Side tool store</td>
<td>n° pos.</td>
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<tr>
<td>BORING UNIT</td>
<td>Vertical and horizontal spindles</td>
<td>n°</td>
<td>from 12 up to 26</td>
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<tr>
<td>Max. rotation</td>
<td>rpm</td>
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<tr>
<td>INSTALLATION</td>
<td>Main suction opening diameter</td>
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<td>Additional suction opening diameter</td>
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<td>Suction air consumption</td>
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<td>Compressed air consumption</td>
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<tr>
<td>Machine weight</td>
<td>Kg</td>
<td>9000 - 12000</td>
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</table>

**SAVENERGY** High performance and energy saving

- Optimum feed speed depending on the material and tool
- Optimisation of compressed air consumption
- Optimisation of vacuum pump speed of rotation, depending on the vacuum required
- Electrospindle heat exchanger management, depending on the operating temperature
- Automatic switch to stand-by for motors not being used for machining, manual or NC
- Opening of the exhaust outlets related to the machining in progress
### ACCORD 50 FX • ACCORD 50 FXM

#### X-Y-Z MACHINING AREA (MM)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B&lt;sup&gt;*&lt;/sup&gt;</th>
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<tbody>
<tr>
<td><strong>ACCORD 50 FX PRO-SPACE</strong></td>
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<sup>*</sup> with Rapid 24 the dimension B increases of 380 mm
THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND

Over 65 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

65 years history
3 main production sites in Italy
300,000 square metres of production space
17,000 machines manufactured per year
90% export
20 foreign branches
350 agents and dealers
500 support technicians
500 registered patents

In SCM’s DNA also strength and solidity of a great Group. The SCM Group is a world leader, manufacturing industrial equipment and components for machining the widest range of materials.

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.

WOODWORKING TECHNOLOGIES

TECHNOLOGIES FOR PROCESSING COMPOSITE MATERIALS, ALUMINIUM, PLASTIC, GLASS, STONE, METAL

The technical data can vary according to the requested machine composition. In this catalogue, machines are shown with options. The company reserves the right to modify technical specifications without prior notice; the modifications do not influence the safety foreseen by the CE Norms.
equipment and components for machining the widest range of materials.

MACHINES AND COMPONENTS

INDUSTRIAL COMPONENTS

Technological components for the Group’s machines and systems, for those of third-parties and the machinery industry.

- **HITECO**: Spindles and technological components
- **Les**: Electric panels
- **Steelmec**: Metalwork
- **Scm Fonderie**: Cast iron